# **UNITED STATES** SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

# **FORM 40-F**

[X] Registration statement pursuant to Section 12 of the Securities Exchange Act of 1934

or

[] Annual report pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934

For the fiscal year ended

Commission File Number

# Titan Medical Inc.

(Exact name of Registrant as specified in its charter)

**Ontario** (Province or other jurisdiction of incorporation or

organization)

3841 (Primary Standard Industrial Classification Code Number)

98-0663504 (I.R.S. Employer Identification Number)

170 University Avenue, Suite 1000 Toronto, Ontario M5H 3B3 Canada

(416) 548-7522

(Address and telephone number of Registrant's principal executive offices)

**CT** Corporation System 1015 15th Street N.W., Suite 1000 Washington, DC 20005 (202) 572-3100

(Name, address (including zip code) and telephone number (including area code) of agent for service in the United States)

Securities registered or to be registered pursuant to Section 12(b) of the Act:

Title of each class

Common Shares, no par value

Securities registered pursuant to Section 12(g) of the Act: None.

Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act: None

For annual reports, indicate by check mark the information filed with this Form:

[] Annual information form

[] Audited annual financial statements

Name of each exchange on which registered

Indicate the number of outstanding shares of each of the issuer's classes of capital or common stock as of the close of the period covered by the annual report:N/A

Indicate by check mark whether the Registrant by filing the information contained in this Form is also thereby furnishing the information to the Commission pursuant to Rule 12g3-2(b) under the Securities Exchange Act of 1934 (the "Exchange Act"). If "Yes" is marked, indicate the file number assigned to the Registrant in connection with such Rule.

[ ] Yes [X] No

Indicate by check mark whether the Registrant: (1) has filed all reports required to be filed by Section 13 or 15(d) of the Exchange Act during the preceding 12 months (or for such shorter period that the registrant was required to file such reports); and (2) has been subject to such filing requirements for the past 90 days. []Yes [] Ño

The NASDAQ Stock Market LLC

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 12b-2 of the Exchange Act.

If an emerging growth company that prepares its financial statements in accordance with U.S. GAAP, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards† provided pursuant to Section 13(a) of the Exchange Act. []

† The term "new or revised financial accounting standard" refers to any update issued by the Financial Accounting Standards Board to its Accounting Standards Codification after April 5, 2012.

#### EXPLANATORY NOTE

Titan Medical Inc. (the "Company", the "Registrant") is a Canadian issuer eligible to file its registration statement pursuant to Section 12 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), on Form 40-F pursuant to the multi-jurisdictional disclosure system of the Exchange Act. The Company is a "foreign private issuer" as defined in Rule 3b-4 under the Exchange Act. Equity securities of the Company are accordingly exempt from Sections 14(a), 14(b), 14(c), 14(f) and 16 of the Exchange Act pursuant to Rule 3a12-3.

#### FORWARD LOOKING STATEMENTS

The Exhibits incorporated by reference into this Registration Statement of the Registrant contain forward-looking statements that reflect our management's expectations with respect to future events, our financial performance and business prospects. All statements other than statements of historical fact are forward-looking statements. The use of the words "anticipate", "believe", "continue", "could", "estimate", "expect", "intends", "may", "might", "plan", "possible", "potential", "predict", "project", "should", "would", and similar expressions may identify forward-looking statements, but the absence of these words does not mean that a statement is not forward-looking. These statements involve known and unknown risks, uncertainties, and other factors that may cause actual results or events to differ materially from those anticipated or implied in such forward-looking statements, including, without limitation, those described in the Company's Annual Information Form for the year ended December 31, 2017 filed as Exhibit 99.3 to this Registration Statement. No assurance can be given that these expectations will prove to be correct and such forward-looking statements in the Exhibits incorporated by reference into this Registration Statement are made as of the respective dates set forth in such Exhibits. Such forward-looking statements are based on the beliefs, expectations and opinions of management on the date the statements are made. In preparing this Registration Statement, the Registrant has not updated such forward-looking statements or effect any change in circumstances or in management's beliefs, expectations or opinions that may have occurred prior to the date hereof. Nor does the Registrant assume any obligation to update such forward-looking statements.

#### DIFFERENCES IN UNITED STATES AND CANADIAN REPORTING PRACTICES

The Registrant is permitted, under a multijurisdictional disclosure system adopted by the United States, to prepare this report in accordance with Canadian disclosure requirements, which are different from those of the United States. The Registrant prepares its financial statements, which are filed with this report on Form 40-F in accordance with International Financial Reporting Standards as issued by the International Accounting Standards Board, and the audit is subject to Canadian auditing and auditor independence standards.

#### PRINCIPAL DOCUMENTS

In accordance with General Instruction B.(1) of Form 40-F, the Registrant hereby incorporates by reference Exhibits 99.1 through 99.130, inclusive, as set forth in the Exhibit Index attached hereto.

In accordance with General Instruction D.(9) of Form 40-F, the Registrant has filed the written consent of certain expert named in the foregoing Exhibits as Exhibit 99.131, as set forth in the Exhibit Index attached hereto.

#### TAX MATTERS

Purchasing, holding, or disposing of securities of the Registrant may have tax consequences under the laws of the United States and Canada that are not described in this registration statement on Form 40-F.

### 2

## DESCRIPTION OF COMMON SHARES

The required disclosure is included under the heading "Capital Structure" in the Registrant's Annual Information Form for the fiscal year ended December 31, 2017, attached hereto as Exhibit 99.3.

# **OFF-BALANCE SHEET ARRANGEMENTS**

The Registrant has no off-balance sheet arrangements.

## CURRENCY

Unless otherwise indicated, all dollar amounts in this Registration Statement on Form 40-F are in United States dollars.

## CONTRACTUAL OBLIGATIONS

The following table lists, as of December 31, 2017, information with respect to the Registrant's known contractual obligations (in thousands):

|                                                                            |         | Pa        | yments due by per | iod       |           |
|----------------------------------------------------------------------------|---------|-----------|-------------------|-----------|-----------|
|                                                                            |         | Less than |                   |           | More than |
| Contractual Obligations                                                    | Total   | 1 year    | 1-3 years         | 3-5 years | 5 years   |
| Long-Term Debt Obligations                                                 |         |           |                   |           |           |
| Capital (Finance) Lease Obligations                                        |         |           |                   |           |           |
| Operating Lease Obligations                                                | \$244   |           | \$244             |           |           |
| Purchase Obligations                                                       | \$5,035 | \$5,035   |                   |           |           |
| Other Long-Term Liabilities Reflected on the Company's Balance Sheet under |         |           |                   |           |           |
| the GAAP of the primary financial statements                               |         |           |                   |           |           |
| Total                                                                      | \$5,279 | \$5,035   | \$244             |           |           |

#### UNDERTAKING

The Registrant undertakes to make available, in person or by telephone, representatives to respond to inquiries made by the Commission staff, and to furnish promptly, when requested to do so by the Commission staff, information relating to the securities registered pursuant to Form 40-F or transactions in said securities.

## CONSENT TO SERVICE OF PROCESS

The Registrant has concurrently filed a Form F-X in connection with the class of securities to which this Registration Statement relates.

Any change to the name or address of the Registrant's agent for service shall be communicated promptly to the Commission by amendment to the Form F-X referencing the file number of the Registrant.

## SIGNATURES

Pursuant to the requirements of the Exchange Act, the Registrant certifies that it meets all of the requirements for filing on Form 40-F and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized.

## TITAN MEDICAL INC.

By: /s/ Stephen Randall

Name: Stephen Randall Title: Chief Financial Officer

Date: June 11, 2018

# EXHIBIT INDEX

The following documents are being filed with the Commission as Exhibits to this Registration Statement:

| 99.1Audited Financial Statements for the years ended December 31, 2017 and 201699.2Management's Discussion and Analysis for the year ended December 31, 201799.3Annual Information Form dated March 31, 201899.4Certification of Annual Filings in connection with filing of MD&A and Financial Statements by CEO dated February 13, 201899.5Certification of Annual Filings in connection with filing of MD&A and Financial Statements by CEO dated February 13, 201899.6News Release dated January 3, 201799.7News Release dated January 10, 201799.8Material Change Report dated January 10, 201799.9Material Change Report dated January 10, 201799.10News Release dated January 5, 201799.11News Release dated January 5, 201799.12News Release dated January 5, 201799.13News Release dated Hebruary 6, 201799.14News Release dated March 7, 201799.15Agency Agreement dated March 10, 201799.16News Release dated March 10, 201799.17News Release dated March 10, 201799.18News Release dated March 10, 201799.19News Release dated March 10, 201799.19News Release dated March 16, 201799.19News Release dated March 16, 201799.19Material Change Report dated March 16, 2017 <tr< th=""></tr<> |
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| 92.3Annual Information Form dated March 31, 201892.4Certification of Annual Filings in connection with filing of MD&A and Financial Statements by CEO dated February 13, 201892.5Certification of Annual Filings in connection with filing of MD&A and Financial Statements by CEO dated February 13, 201892.6News Release dated January 3, 201792.7News Release dated January 9, 201792.8Material Change Report dated January 10, 201792.9Material Change Report dated January 10, 201792.10News Release dated January 25, 2017.92.11News Release dated January 25, 2017.92.12News Release dated January 25, 2017.92.13News Release dated March 7, 2017.92.14News Release dated March 7, 2017.92.15Agency Agreement dated March 9, 2017.92.16News Release dated March 9, 2017.92.17News Release dated March 9, 2017.92.18News Release dated March 10, 2017.92.19News Release dated March 10, 2017.92.11News Release dated March 10, 2017.92.12News Release dated March 10, 2017.92.13News Release dated March 10, 2017.92.14News Release dated March 10, 2017.92.15Marran Indenture dated March 16, 2017.92.16Narran Indenture dated March 16, 2017.92.17Material Change Report dated March 16, 2017.92.18Material Change Report dated March 16, 2017.92.19Material Change Report dated March 16, 2017.92.10News Release dated March 16, 2017.92.11<                                                   |
| 924       Certification of Annual Filings in connection with filing of MD&A and Financial Statements by CEO dated February 13, 2018         99.5       Certification of Annual Filings in connection with filing of MD&A and Financial Statements by CEO dated February 13, 2018         99.6       News Release dated January 3, 2017         99.7       News Release dated January 9, 2017         99.8       Material Change Report dated January 10, 2017         99.9       Material Change Report dated January 10, 2017         99.10       News Release dated January 25, 2017         99.11       News Release dated January 25, 2017         99.12       News Release dated January 25, 2017         99.13       News Release dated March 7, 2017         99.14       News Release dated March 7, 2017         99.15       Agreency Agreement dated March 10, 2017         99.16       News Release dated March 10, 2017         99.17       News Release dated March 10, 2017         99.18       Agreency Agreement dated March 16, 2017         99.19       Material Change Report dated March 16, 2017                    |
| 92.5Certification of Annual Filings in connection with filing of MD&A and Financial Statements by CFO dated February 13, 201892.6News Release dated January 3, 201792.7News Release dated January 9, 201792.8Material Change Report dated January 10, 201792.9Material Change Report dated January 10, 201792.10News Release dated January 25, 201792.11News Release dated January 52, 201792.12News Release dated February 6, 201792.13News Release dated March 7, 201792.14News Release dated March 9, 201792.15Agency Agreement dated March 10, 201792.16News Release dated March 10, 201792.17News Release dated March 10, 201792.18Material Change Report dated March 16, 201792.19News Release dated March 16, 201792.19News Release dated March 16, 201792.19Material Change Report d                                                            |
| 99.6       News Release dated January 3, 2017         99.7       News Release dated January 9, 2017         99.8       Material Change Report dated January 10, 2017         99.9       Material Change Report dated January 10, 2017         99.10       News Release dated January 25, 2017         99.11       News Release dated February 6, 2017         99.12       News Release dated March 7, 2017         99.13       News Release dated March 7, 2017         99.14       News Release dated March 8, 2017         99.15       Agency Agreement dated March 10, 2017         99.16       News Release dated March 10, 2017         99.17       News Release dated March 10, 2017         99.18       Warrant Indenture dated March 16, 2017         99.19       Material Change Report dated March 16, 2017         99.19       Material Change Report dated March 16, 2017         99.19       Material Change Report dated March 16, 2017         99.20       Material Chan                                                                                 |
| 99.7News Release dated January 9, 201799.8Material Change Report dated January 10, 201799.9Material Change Report dated January 10, 201799.10News Release dated January 25, 201799.11News Release dated February 6, 201799.12News Release dated February 6, 201799.13News Release dated March 7, 201799.14News Release dated March 8, 201799.15Agency Agreement dated March 10, 201799.16News Release dated March 10, 201799.17News Release dated March 10, 201799.18Warrant Indenture dated March 16, 201799.19Material Change Report dated March 16, 201799.20Material Change Report dated March 16, 201799.21News Release dated March 16, 201799.22Material Change Report dated March 16, 201799.23News Release dated March 16, 201799.24Material Change Report dated March 16, 201799.25Material Change Report dated March 16, 201799.26Material Change Report dated March 16, 2017                                                                                                                 |
| 92.8Material Change Report dated January 10, 201792.9Material Change Report dated January 10, 201792.10News Release dated January 25, 201792.11News Release dated February 6, 201792.12News Release dated March 7, 201792.13News Release dated March 7, 201792.14News Release dated March 9, 201792.15Agency Agreement dated March 10, 201792.16News Release dated March 10, 201792.17News Release dated March 10, 201792.18Warrant Indenture dated March 16, 201792.19Material Change Report dated March 16, 201792.10                                                                                 |
| 92.9Material Change Report dated January 10,201799.10News Release dated January 25,201799.11News Release dated February 6,201799.12News Release dated March 7,201799.13News Release dated March 8,201799.14News Release dated March 9,201799.15Agency Agreement dated March 10,201799.16News Release dated March 10,201799.17News Release dated March 16,201799.18Warrant Indenture dated March 16,201799.19Material Change Report dated March 16,201799.20Material Change Report dated March 16,201799.21News Release dated March 16,201799.22Material Change Report dated March 16,2017                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 99.10News Release dated January 25, 201799.11News Release dated February 6, 201799.12News Release dated March 7, 201799.13News Release dated March 8, 201799.14News Release dated March 9, 201799.15Agency Agreement dated March 10, 201799.16News Release dated March 10, 201799.17News Release dated March 16, 201799.18Warrant Indenture dated March 16, 201799.19Material Change Report dated March 16, 201799.19Material Change Report dated March 16, 201799.20Material Change Report dated March 16, 201799.21News Release dated March 16, 2017                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| PointNews Release dated February 6, 201799.12News Release dated March 7, 201799.13News Release dated March 8, 201799.14News Release dated March 9, 201799.15Agency Agreement dated March 10, 201799.16News Release dated March 10, 201799.17News Release dated March 16, 201799.18Warrant Indenture dated March 16, 201799.19Material Change Report dated March 16, 201799.20Material Change Report dated March 16, 201799.20News Release dated March 16, 2017                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| PurchasePurchase99.12News Release dated March 7. 201799.13News Release dated March 8. 201799.14News Release dated March 9. 201799.15Agency Agreement dated March 10. 201799.16News Release dated March 10. 201799.17News Release dated March 16. 201799.18Warrant Indenture dated March 16. 201799.19Material Change Report dated March 16. 201799.20Material Change Report dated March 16. 201799.21News Release dated March 16. 2017                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 99.13News Release dated March 8, 201799.14News Release dated March 9, 201799.15Agency Agreement dated March 10, 201799.16News Release dated March 10, 201799.17News Release dated March 16, 201799.18Warrant Indenture dated March 16, 201799.19Material Change Report dated March 16, 201799.20Material Change Report dated March 16, 201799.21News Release dated March 16, 2017                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| P9.14News Release dated March 9, 201799.15Agency Agreement dated March 10, 201799.16News Release dated March 10, 201799.17News Release dated March 16, 201799.18Warrant Indenture dated March 16, 201799.19Material Change Report dated March 16, 201799.20Material Change Report dated March 16, 201799.21News Release dated March 16, 2017                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 99.15Agency Agreement dated March 10, 201799.16News Release dated March 10, 201799.17News Release dated March 16, 201799.18Warrant Indenture dated March 16, 201799.19Material Change Report dated March 16, 201799.20Material Change Report dated March 16, 201799.21News Release dated March 16, 2017                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 99.16       News Release dated March 10, 2017         99.17       News Release dated March 16, 2017         99.18       Warrant Indenture dated March 16, 2017         99.19       Material Change Report dated March 16, 2017         99.20       Material Change Report dated March 16, 2017         99.21       News Release dated March 16, 2017                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 99.17       News Release dated March 16, 2017         99.18       Warrant Indenture dated March 16, 2017         99.19       Material Change Report dated March 16, 2017         99.20       Material Change Report dated March 16, 2017         99.21       News Release dated March 17, 2017                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 99.18       Warrant Indenture dated March 16, 2017         99.19       Material Change Report dated March 16, 2017         99.20       Material Change Report dated March 16, 2017         99.21       News Release dated March 17, 2017                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 99.19       Material Change Report dated March 16, 2017         99.20       Material Change Report dated March 16, 2017         99.21       News Release dated March 17, 2017                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 99.20       Material Change Report dated March 16, 2017         99.21       News Release dated March 17, 2017                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 99.21 News Release dated March 17, 2017                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 99.22 News Release dated March 21, 2017                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 99.23 Certification of Annual Filings in connection with filing of Annual Information Form by CEO dated March 21, 2017                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 99.24 Certification of Annual Filings in connection with filing of Annual Information Form by CFO dated March 21, 2017                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 99.25 Management's Discussion and Analysis for the year ended December 31, 2016                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 99.26 Audited Financial Statements for the years ended December 31, 2016 and 2015                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 99.27 News Release dated March 23, 2017                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 99.28 Annual Information Form dated March 31, 2017                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 99.29 Certification of Annual Filings in connection with filing of Annual Information Form by CEO dated March 31, 2017                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 99.30 Certification of Annual Filings in connection with filing of Annual Information Form by CFO dated March 31, 2017                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

5

| <u>Exhibit</u> | Description                                                                                                |
|----------------|------------------------------------------------------------------------------------------------------------|
| <u>99.31</u>   | News Release dated April 3, 2017                                                                           |
| <u>99.32</u>   | News Release dated April 24, 2017                                                                          |
| <u>99.33</u>   | News Release dated April 26, 2017                                                                          |
| <u>99.34</u>   | News Release dated April 28, 2017                                                                          |
| <u>99.35</u>   | News Release dated May 11, 2017                                                                            |
| <u>99.36</u>   | Unaudited Condensed Interim Financial Statements for the three months ended March 31, 2017 and 2016        |
| <u>99.37</u>   | Management's Discussion and Analysis for the three months ended March 31, 2017                             |
| <u>99.38</u>   | Certification of Interim Filings by CEO dated May 11, 2017                                                 |
| <u>99.39</u>   | Certification of Interim Filings by CFO dated May 11, 2017                                                 |
| <u>99.40</u>   | News Release dated May 17, 2017                                                                            |
| <u>99.41</u>   | Notice of Annual and Special Meeting of Shareholders dated May 18, 2017                                    |
| <u>99.42</u>   | Management Information Circular dated May 18, 2017                                                         |
| <u>99.43</u>   | Form of Proxy for Annual and Special Meeting of Shareholders to be held on June 15, 2017                   |
| <u>99.44</u>   | Material Change Report dated June 2, 2017                                                                  |
| <u>99.45</u>   | News Release dated June 7, 2017                                                                            |
| <u>99.46</u>   | News Release dated June 9, 2017                                                                            |
| <u>99.47</u>   | News Release dated June 16, 2017                                                                           |
| <u>99.48</u>   | News Release dated June 19, 2017                                                                           |
| <u>99.49</u>   | News Release dated June 20, 2017                                                                           |
| <u>99.50</u>   | Agency Agreement dated June 26, 2017                                                                       |
| <u>99.51</u>   | News Release dated June 27, 2017                                                                           |
| <u>99.52</u>   | News Release dated June 29, 2017                                                                           |
| <u>99.53</u>   | Warrant Indenture dated June 29, 2017                                                                      |
| <u>99.54</u>   | Material Change Report dated June 29, 2017                                                                 |
| <u>99.55</u>   | News Release dated July 10, 2017                                                                           |
| <u>99.56</u>   | News Release dated July 21, 2017                                                                           |
| <u>99.57</u>   | Material Change Report dated July 25, 2017                                                                 |
| <u>99.58</u>   | News Release dated July 28, 2017                                                                           |
| <u>99.59</u>   | News Release dated August 1, 2017                                                                          |
| <u>99.60</u>   | Material Change Report dated August 1, 2017                                                                |
| <u>99.61</u>   | News Release dated August 8, 2017                                                                          |
| <u>99.62</u>   | Unaudited Condensed Interim Financial Statements for the three and six months ended June 30, 2017 and 2016 |
| <u>99.63</u>   | Management's Discussion and Analysis for the three and six months ended June 30, 2017                      |

| <u>Exhibit</u> | Description                                                                                                      |
|----------------|------------------------------------------------------------------------------------------------------------------|
| <u>99.64</u>   | Certification of Interim Filings by CEO dated August 8, 2017                                                     |
| <u>99.65</u>   | Certification of Interim Filings by CFO dated August 8, 2017                                                     |
| <u>99.66</u>   | News Release dated August 22, 2017                                                                               |
| <u>99.67</u>   | News Release dated August 24, 2017                                                                               |
| <u>99.68</u>   | News Release dated September 5, 2017                                                                             |
| <u>99.69</u>   | Material Change Report dated September 8, 2017                                                                   |
| <u>99.70</u>   | News Release dated September 18, 2017                                                                            |
| <u>99.71</u>   | News Release dated September 25, 2017                                                                            |
| <u>99.72</u>   | News Release dated September 28, 2017                                                                            |
| <u>99.73</u>   | News Release dated October 20, 2017                                                                              |
| <u>99.74</u>   | News Release dated October 23, 2017                                                                              |
| <u>99.75</u>   | News Release dated October 26, 2017                                                                              |
| <u>99.76</u>   | News Release dated October 31, 2017                                                                              |
| <u>99.77</u>   | Material Change Report dated October 31, 2017                                                                    |
| <u>99.78</u>   | News Release dated November 6, 2017                                                                              |
| <u>99.79</u>   | News Release dated November 9, 2017                                                                              |
| <u>99.80</u>   | Unaudited Condensed Interim Financial Statements for the three and nine months ended September 30, 2017 and 2016 |
| <u>99.81</u>   | Management's Discussion and Analysis for the three and nine months ended September 30, 2017                      |
| <u>99.82</u>   | Certification of Interim Filings by CEO dated November 9, 2017                                                   |
| <u>99.83</u>   | Certification of Interim Filings by CFO dated November 9, 2017                                                   |
| <u>99.84</u>   | News Release dated November 14, 2017                                                                             |
| <u>99.85</u>   | News Release dated November 15, 2017                                                                             |
| <u>99.86</u>   | News Release dated November 16, 2017                                                                             |
| <u>99.87</u>   | News Release dated November 17, 2017                                                                             |
| <u>99.88</u>   | News Release dated November 20, 2017                                                                             |
| <u>99.89</u>   | News Release dated November 23, 2017                                                                             |
| <u>99.90</u>   | Material Change Report dated November 24, 2017                                                                   |
| <u>99.91</u>   | Agency Agreement dated November 30, 2017                                                                         |
| <u>99.92</u>   | News Release dated December 1, 2017                                                                              |
| <u>99.93</u>   | News Release dated December 5, 2017                                                                              |
| <u>99.94</u>   | News Release dated December 6, 2017                                                                              |
| <u>99.95</u>   | Material Change Report dated December 6, 2017                                                                    |
| <u>99.96</u>   | News Release dated December 13, 2017                                                                             |
| <u>99.97</u>   | News Release dated December 20, 2017                                                                             |
| <u>99.98</u>   | News Release dated January 30, 2018                                                                              |
|                | 7                                                                                                                |

| <u>Exhibit</u> | Description                                                                                                      |
|----------------|------------------------------------------------------------------------------------------------------------------|
| <u>99.99</u>   | News Release dated February 6, 2018                                                                              |
| <u>99.100</u>  | News Release dated February 13, 2018                                                                             |
| <u>99.101</u>  | News Release dated February 27, 2018                                                                             |
| 99.102         | News Release dated March 1, 2018                                                                                 |
| <u>99.103</u>  | News Release dated March 6, 2018                                                                                 |
| <u>99.104</u>  | News Release dated March 7, 2018                                                                                 |
| <u>99.105</u>  | News Release dated March 15, 2018                                                                                |
| <u>99.106</u>  | News Release dated March 15, 2018                                                                                |
| <u>99.107</u>  | News Release dated March 27, 2018                                                                                |
| <u>99.108</u>  | News Release dated March 29, 2018                                                                                |
| 99.109         | Material Change Report dated April 2, 2018                                                                       |
| <u>99.110</u>  | Agency Agreement dated April 3, 2018                                                                             |
| <u>99.111</u>  | News Release dated April 3, 2018                                                                                 |
| <u>99.112</u>  | Certification of Annual Filings in connection with filing of Annual Information Form by CEO dated March 31, 2018 |
| <u>99.113</u>  | Certification of Annual Filings in connection with filing of Annual Information Form by CFO dated March 31, 2018 |
| <u>99.114</u>  | News Release dated April 10, 2018                                                                                |
| <u>99.115</u>  | Warrant Indenture dated April 10, 2018                                                                           |
| <u>99.116</u>  | Material Change Report dated April 10, 2018                                                                      |
| <u>99.117</u>  | Notice of Annual General and Special Meeting and Record Date dated April 13, 2018                                |
| <u>99.118</u>  | News Release dated April 16, 2018                                                                                |
| <u>99.119</u>  | News Release dated May 10, 2018                                                                                  |
| <u>99.120</u>  | Unaudited Condensed Interim Financial Statements for the three months ended March 31, 2018 and 2017              |
| <u>99.121</u>  | Management's Discussion and Analysis for the three months ended March 31, 2018                                   |
| <u>99.122</u>  | Certification of Interim Filings by CEO dated May 11, 2018                                                       |
| <u>99.123</u>  | Certification of Interim Filings by CFO dated May 11, 2018                                                       |
| <u>99.124</u>  | Notice of Annual and Special Meeting of Shareholders dated May 11, 2018                                          |
| <u>99.125</u>  | Management Information Circular dated May 11, 2018                                                               |
| <u>99.126</u>  | News Release dated May 14, 2018                                                                                  |
| <u>99.127</u>  | Material Change Report dated May 22, 2018                                                                        |
| <u>99.128</u>  | Form of Proxy for Annual and Special Meeting of Shareholders to be held on June 14, 2018                         |
| <u>99.129</u>  | News Release dated June 1, 2018                                                                                  |
| <u>99.130</u>  | Material Change Report dated June 5, 2018                                                                        |
| <u>99.131</u>  | Consent of BDO Canada LLP                                                                                        |
|                | 8                                                                                                                |

# TITAN MEDICAL INC. FINANCIAL STATEMENTS YEARS ENDED DECEMBER 31, 2017 AND 2016

(IN UNITED STATES DOLLARS)



BDO Canada LLP TD Bank Tower 66 Wellington Street West Suite 3600, PO Box 131 Toronto ON M5K 1H1 Canada

#### **Independent Auditor's Report**

#### To the Shareholders of Titan Medical Inc.

We have audited the accompanying financial statements of Titan Medical Inc., which comprise the balance sheets as at December 31, 2017 and December 31, 2016 and the statements of shareholders' equity and deficit, net and comprehensive loss and cash flows for the years ended December 31, 2017 and December 31, 2016 and a summary of significant accounting policies and other explanatory information.

## Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with International Financial Reporting Standards as issued by the International Accounting Standards Board, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

### Auditor's Responsibility

Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits in accordance with Canadian generally accepted auditing standards. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained in our audits is sufficient and appropriate to provide a basis for our audit opinion.

## Opinion

In our opinion, the financial statements present fairly, in all material respects, the financial position of Titan Medical Inc. as at December 31, 2017 and December 31, 2016 and its financial performance and its cash flows for the years ended December 31, 2017 and December 31, 2016 in accordance with International Financial Reporting Standards as issued by the International Accounting Standards Board.

# BDO Canada LLP

## Chartered Accountants, Licensed Public Accountants

Toronto, Ontario February 13, 2018

BDO Canada LLP, a Canadian limited liability partnership, is a member of BDO International Limited, a UK company limited by guarantee, and forms part of the international BDO network of independent member firms.

|                                           | December 31, 2017 | December 31, 2016 |
|-------------------------------------------|-------------------|-------------------|
| ASSETS                                    |                   |                   |
| CURRENT                                   |                   |                   |
| CORRENT                                   |                   |                   |
| Cash and cash equivalents                 | 26,130,493        | 4,339,911         |
| Amounts receivable                        | 75,151            | 176,009           |
| Deposits(Note 8)                          | 2,538,434         | 2,016,648         |
| Prepaid expense                           | 149,593           | 66,465            |
| Total Current Assets                      | 28,893,671        | 6,599,033         |
| Furniture and Equipment (Note 3)          | 6,714             | 9,350             |
| Patent Rights (Note 4)                    | 774,225           | 584,113           |
| TOTAL ASSETS                              | 29,674,610        | 7,192,496         |
| LIABILITIES                               |                   |                   |
| CURRENT                                   |                   |                   |
| Accounts payable and accrued liabilities  | 2,218,352         | 2,232,201         |
| Warrant liability (Note 2(h) and 6)       | 17,849,460        | 2,365,691         |
| Other Liabilities and charges (Note 5(a)) | <u></u>           | 2,000,000         |
| TOTAL LIABILITIES                         | 20,067,812        | 6,597,892         |
| SHAREHOLDERS' EQUITY                      |                   |                   |
| Share Capital (Note 5(a))                 | 154,016,519       | 112,742,810       |
| Contributed Surplus                       | 5,146,784         | 3,707,432         |
| Warrants (Note 5(b))                      | 741,917           | 855,800           |
| Deficit                                   | (150,298,422)     | (116,711,438)     |
| TOTAL EQUITY                              | 9,606,798         | 594,604           |
| TOTAL LIABILITIES & EQUITY                | 29,674,610        | 7,192,496         |
| Commitments (Note 8)                      |                   |                   |
| See notes to financial statements         |                   |                   |
| Approved on behalf of the Board:          |                   |                   |
|                                           | d McNally         |                   |
| Chairman Presi                            | ident and CEO     |                   |

1

|                                           | Share Capital<br>Number | Share Capital<br>Amount | Contributed<br>Surplus | Warrants       | Deficit             | Total<br>Equity |
|-------------------------------------------|-------------------------|-------------------------|------------------------|----------------|---------------------|-----------------|
| Balance - December 31, 2015               | 116,457,486             | \$<br>86,083,419        | \$<br>2,849,061        | \$<br>4044,192 | \$<br>(93,387,942)  | \$<br>(411,270  |
| Issued pursuant to agency agreement       | 49,844,121              | 25,798,829              |                        |                |                     | 25,708,829      |
| Issued Private Placement                  | 130,839                 | 100,000                 |                        |                |                     | 100,000         |
| Share issue expense                       |                         | (2,408,550)             |                        |                |                     | (2,408,550      |
| Warrants exercised during the year        | 70,000                  | 63,288                  |                        |                |                     | 63,288          |
| Warrants expired during the year          |                         | 3,188,392               |                        | (3,188,392)    |                     | -               |
| Options exercised during the year         | 9,000                   | 7,432                   | (3,825)                |                |                     | 3,607           |
| Stock based compensation                  |                         |                         | 862,196                |                |                     | 862,196         |
| Net and Comprehensive loss for the year   |                         |                         |                        |                | (23,323,496)        | (23,323,496     |
|                                           |                         |                         |                        |                |                     |                 |
| Balance - December 31, 2016               | 166,511,446             | \$<br>112,742,810       | \$<br>3,707,432        | \$<br>855,800  | \$<br>(116,711,438) | \$<br>594,606   |
|                                           |                         |                         |                        |                |                     |                 |
| ssued pursuant to agency agreement        | 126,972,837             | 20,799,951              |                        |                |                     | 20,799,951      |
| ssued Private Placement                   | 30,277,900              | 4,564,737               |                        |                |                     | 4,564,737       |
| ssued Other                               | 225,000                 | 67,954                  |                        |                |                     | 67, 954         |
| Share issue expense                       |                         | (2,132,238)             |                        |                |                     | (2,132,238      |
| Warrants exercised during the year        | 52,654,224              | 17,392,158              |                        |                |                     | 17,392,158      |
| Warrants expired during the year          |                         | 113,883                 |                        | (113,883)      |                     | -               |
| Broker warrants exercised during the year | 3,960,277               | 467,264                 |                        |                |                     | 467,264         |
| Stock based compensation                  |                         |                         | 1,439,352              |                |                     | 1,439,352       |
| Net and Comprehensive loss for the        |                         |                         | -, ,                   |                | (33,586,984)        | (33,586,984     |
| /ear                                      |                         |                         |                        |                | (,,,,)              | (,,,,,          |
| Balance - December 31, 2017               | 380,601,684             | \$<br>154,016,519       | \$<br>5,146,784        | \$<br>7,41,917 | \$<br>(150,298,422) | \$<br>9,606,798 |
|                                           |                         |                         |                        |                |                     |                 |

|                                                                         |           | Year Ended<br>ecember 31,<br>2017 | Year Ended<br>December 31,<br>2016 |
|-------------------------------------------------------------------------|-----------|-----------------------------------|------------------------------------|
| REVENUE                                                                 | <u>\$</u> | - \$                              | -                                  |
| EXPENSES                                                                |           |                                   |                                    |
| Amortization                                                            |           | 17,360                            | 24,640                             |
| Consulting fees                                                         |           | 598,804                           | 607,032                            |
| Stock based compensation (Note 5(b))                                    |           | 1,439,352                         | 862,196                            |
| Insurance                                                               |           | 25,897                            | 21,858                             |
| Management salaries and fees                                            |           | 2,449,323                         | 1,625,110                          |
| Marketing and investor relations                                        |           | 277,737                           | 396,307                            |
| Office and general                                                      |           | 284,532                           | 297,137                            |
| Professional fees                                                       |           | 452,751                           | 550,615                            |
| Rent                                                                    |           | 97,817                            | 96,578                             |
| Research and Development                                                |           | 12,900,855                        | 22,577,885                         |
| Travel                                                                  |           | 339,628                           | 468,432                            |
| Foreign exchange loss                                                   |           | 542,664                           | 277,303                            |
|                                                                         |           | 19,426,720                        | 27,805,093                         |
| FINANCE INCOME (COST)                                                   |           | , ,                               | , ,                                |
| Interest                                                                |           | 17,442                            | 7,540                              |
| Gain(Loss) on change in fair value of warrants (Note 2(h), 5(a), and 6) |           | (13,133,671)                      | 4,950,013                          |
| Warrant liability issue cost                                            |           | (1,044,035)                       | (475,956)                          |
|                                                                         |           | (14,160,264)                      | 4,481,597                          |
| NET AND COMPREHNESIVE LOSS FOR THE YEAR                                 | \$        | 33,586,984 \$                     | 23,323,496                         |
| BASIC AND DILUTED LOSS PER SHARE                                        | \$        | (0.14) \$                         | (0.16)                             |
| WEIGHTED AVERAGE NUMBER OF COMMON SHARES,                               |           |                                   |                                    |
| Basic and Diluted                                                       |           | 236,983,289                       | 146,558,122                        |
| See notes to financial statements                                       |           |                                   |                                    |

| · · · · ·                                                |    | Year Ended<br>December 31,<br>2017 | Year Ended<br>December 31,<br>2016 |
|----------------------------------------------------------|----|------------------------------------|------------------------------------|
| OPERATING ACTIVITIES                                     |    |                                    |                                    |
| Net loss for the year                                    | \$ | (33,586,984) \$                    | (23,323,496)                       |
| Items not involving cash:                                |    |                                    |                                    |
| Amortization                                             |    | 17,360                             | 24,640                             |
| Stock based compensation                                 |    | 1,439,352                          | 862,196                            |
| Other share compensation                                 |    | 120,171                            | -                                  |
| Warrant liability-fair value adjustment                  |    | 12,423,889                         | (4,950,013)                        |
| Warrant liability-foreign exchange adjustment            |    | 305,475                            | (03,465)                           |
| Loss on extinguishment of other liabilities              |    | 709,782                            | -                                  |
| Changes in non-cash working capital items:               |    |                                    |                                    |
| Amounts receivable, prepaid expenses and deposits        |    | (504,056)                          | (1,023,465)                        |
| Accounts payable and accrued liabilities                 |    | (13,849)                           | (6,927,628)                        |
| Cash used in operating activities                        |    | (19,088,860)                       | (35,198,967)                       |
| FINANCING ACTIVITIES                                     |    |                                    |                                    |
| Net proceeds from issuance of common shares and warrants |    | 41,084,278                         | 28,506,328                         |
| Cash provided by financing activities                    |    | 41,084,278                         | 28,506,328                         |
| INVESTING ACTIVITIES                                     |    |                                    |                                    |
| Increase in furniture and equipment                      |    | (3,427)                            | (10,088)                           |
| Cost of Patents                                          |    | (201,409)                          | (154,935)                          |
| Cash used in investing activities                        |    | (204,836)                          | (165,023)                          |
| INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS         |    | 21,790,582                         | (6,857,662)                        |
| CASH AND CASH EQUIVALENTS, BEGINNING OF YEAR             |    | 4,339,911                          | 11,197,573                         |
| CASH AND CASH EQUIVALENTS, END OF YEAR                   | \$ | 26,130,493 \$                      | 4,339,911                          |
| CASH AND CASH EQUIVALENTS COMPRISE:                      |    |                                    |                                    |
| Cash                                                     | \$ | 354,295 \$                         | 128,409                            |
| Cash Equivalents (Note 2 (b))                            | ψ  | 25,776,198                         | 4,211,502                          |
|                                                          | \$ | 26,130,493 \$                      | <i></i>                            |
| See notes to financial statements                        | ·  | ., ,                               | 77                                 |

4

## 1. <u>DESCRIPTION OF BUSINES</u>S

#### **Nature of Operations:**

The Company's business continues to be in the research and development stage and is focused on the continued research and development of the next generation surgical robotic platform. In the near term, the Company will continue efforts toward a pre-clinical grade platform to be used for pre-clinical trials and satisfaction of appropriate regulatory requirements. Upon receipt of regulatory approvals, the Company will transition from the research and development stage to the commercialization stage. The completion of these latter stages will be subject to the Company receiving additional funding in the future.

The Company is incorporated in Ontario, Canada in accordance with the Business Corporations Act.

The address of the Company's corporate office and its principal place of business is Toronto, Canada.

#### **Basis of Preparation:**

#### (a) Statement of Compliance

These financial statements for the year ended December 31, 2017 and December 31, 2016 have been prepared in accordance with International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board ("IASB").

The financial statements were authorized for issue by the Board of Directors on February 13, 2018.

#### (b) Basis of Measurement

These financial statements have been prepared on the historical cost basis except for the revaluation of the warrant liability, which is measured at fair value.

#### (c) Functional and Presentation Currency

These financial statements are presented in United States dollars ("U.S."), which is the Company's functional and presentation currency.

## 2. <u>SUMMARY OF SIGNIFICANT ACCOUNTING POLICIE</u>S

#### (a) Use of Estimates and Judgements

The preparation of financial statements in conformity with IFRS requires management to make estimates and assumptions that affect the reported amount of assets and liabilities and disclosure of provisions at the date of the financial statements and the reported amount of expenses during the year. Financial statement items subject to significant judgement include, the measurement of stock based compensation and the fair value estimate of the initial measurement of new warrant liabilities and the remeasurement of unlisted warrant liabilities. While management believes that the estimates and assumptions are reasonable, actual results may differ.

In assessing whether the going concern assumption is appropriate, management considers all available information about the future, which is at least, but not limited to, twelve months from the end of the reporting period. The Company expects that approximately US \$16.5 million in incremental funding, will be required by the end of 2018 to maintain its currently anticipated pace of development. If additional funding is not available, the pace of the Company's product development plan may be reduced. However, based on internal forecasts, Management believes that the Company has sufficient funds to meet its obligations under a reduced development plan, if necessary, for the ensuing twelve months.

## 2. <u>SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)</u>

#### Fair Value

The Black-Scholes model used by the Company to determine fair values of stock options and warrants was developed for use in estimating the fair value of the stock options and warrants.

#### (b) Cash and Cash Equivalents

Cash and cash equivalents include cash balances and amounts on deposit in high interest savings accounts.

#### (c) Furniture and Equipment

Furniture and equipment are recorded at cost less accumulated amortization and accumulated impairment losses, if any. The Company records amortization using the straight-line method over the estimated useful lives of the capital assets as follows:

| a) | Computer Equipment     | 3 years           |
|----|------------------------|-------------------|
| b) | Furniture and Fixtures | 3-5 years         |
| c) | Leasehold Improvements | Term of the lease |

#### (d) Impairment of long-lived assets

The Company reviews computer equipment, furniture and equipment, leasehold improvements and patent rights for objective evidence of impairment whenever events or changes in circumstances indicate the carrying amount may not be recoverable. Recoverability is measured by comparison of the asset's carrying amount to the asset's recoverable amount, which is the greater of fair value less cost to sell and value in use. Value in use is measured as the expected future discounted cash flows expected to be derived from the asset. If the carrying value exceeds the recoverable amount, the asset is written down to the recoverable amount.

#### (e) Patent Rights

Patent rights are recorded at cost less accumulated amortization and accumulated impairment loss. Straight line amortization is provided over the estimated useful lives of the assets, as prescribed by the granting body, which range up to twenty years.

#### (f) Deferred Income Taxes

The Company uses the asset and liability method of accounting for income taxes. Under this method, deferred tax assets and liabilities are determined based on differences between the financial reporting and tax bases of assets and liabilities, unused tax losses and income tax reductions, and are measured using the substantively enacted tax rates and laws that will be in effect when the differences are expected to reverse. A deferred tax asset is recognized for unused tax losses, tax credits and deductible temporary differences, to the extent that it is probable that future taxable profits will be available against which they can be utilized. Deferred tax assets are reviewed at each reporting date and are reduced to the extent that it is no longer probable that the related tax benefit will be realized. The ultimate realization of deferred tax assets is dependent upon the generation of future taxable income during the periods in which those temporary differences become deductible. Management considers the scheduled reversal of deferred tax liabilities, projected future taxable income and tax planning strategies in making this assessment.

Management has determined not to recognize its net deferred tax assets, as it is not considered probable that future tax benefits will be realized.

#### (g) Foreign Currency

Transactions in currencies other than U.S. dollars are translated at exchange rates in effect at the date of the transactions. Foreign exchange differences arising on settlement are recognized separately in net and comprehensive loss. Monetary year end balances are converted to U.S. dollars at the rate in effect at that time.

## 2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

Non-monetary items in a currency other than U.S. dollars that are measured in terms of historical cost are translated using the exchange rate at the date of transaction or date of adoption of U.S functional currency, whichever is later. Foreign exchange gains and losses are included in net and comprehensive loss.

#### (h) Warrant Liability

In accordance with IAS 32, because the exercise prices of new warrants issued, after the Company's adoption of the U.S. dollar as its functional currency and presentation currency, as well as the warrants issued from the exercise of broker warrants, are not a fixed amount as they are denominated in a currency (Canadian dollar) other than the Company's functional currency (U.S. dollar), the warrants are accounted for as a derivative financial liability. Each Warrant Liability is initially measured at fair value and subsequent changes in fair value are recorded through Net and Comprehensive Loss for the year. The fair value of these warrants was determined initially using a comparable warrant quoted in an active market, adjusted for differences in the terms of the warrant. At December 31, 2017, the Warrant Liability of listed warrants was adjusted to fair value measured at the market price of the listed warrants, the unlisted warrants were adjusted to fair value using the Black-Scholes formula.

#### (i) Fair Value Measurement

The accounting guidance for fair value measurements prioritizes the inputs used in measuring fair value into the following hierarchy:

Level 1 – Quoted prices (unadjusted) in active markets for identical assets or liabilities;

Level 2 - Inputs other than quoted prices included within Level 1 that are directly or indirectly observable:

Level 3 – Unobservable inputs in which little or no market activity exists, therefore requiring an entity to develop its own assumptions about the assumptions that market participants would use in pricing.

The fair value of the listed and unlisted Warrant liability is initially based on level 2 significant observable inputs. At December 31, 2017 and 2016 the listed warrants are based on level 1, quoted prices. At December 31, 2017 and 2016 the unlisted warrants are based on level 2, significant observable inputs.

## (j) Stock Based Compensation

IFRS 2 requires options granted to employees and others providing similar services to be measured at the fair value of goods or services received, unless that fair value cannot be estimated reliably. If the entity cannot estimate reliably the fair value of the goods or services received, the entity shall measure the value and the corresponding increase in equity, indirectly, by reference to the fair value of the equity instruments granted, which the Company does using the Black-Scholes option-pricing model. The fair value of the options granted is determined as at the grant date.

Stock options granted to non-employees are valued at the fair value of the goods or service received, measured at the date on which the goods are received, or the services rendered. If the entity cannot estimate reliably the fair value of the goods or services received, the entity shall measure the value and the corresponding increase in equity, indirectly, by reference to the fair value of the equity instruments granted, which the Company does using the Black-Scholes option- pricing model. The fair value of the options granted is determined as at the grant date.

## (k) Research and Development Costs

Research and development activities undertaken with the prospect of gaining new scientific or technical knowledge and understanding are expensed as incurred. The costs of developing new products are capitalized as deferred development costs, if they meet the development capitalization criteria under IFRS. These criteria include the ability to measure development costs reliably, the product is technically, and commercially feasible, future economic benefits are probable, and the Company intends to and has sufficient resources to complete development and to use or sell the asset. To date, all the research and development costs have been expensed as the criteria for capitalization have not yet been met.

## 2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

## (l) Earnings (loss) per Share

Basic earnings (loss) per share are calculated using the weighted-average number of common shares outstanding during the year. Diluted earnings (loss) per share considers the dilutive impact of the exercise of 17,748,269 outstanding stock options (December 31, 2016 - 7,202,250) and 153,257,634 warrants, (December 31, 2016 - 83,102,520) as if the events had occurred at the beginning of the period or at a time of issuance, if later. Diluted loss per share has not been presented in the accompanying financial statements, as the effect would be anti-dilutive.

## (m) Investment tax credits

As a result of incurring scientific research and development expenditures, management has estimated that there will be non-refundable federal and refundable and nonrefundable provincial investment tax credits receivable following the completion of an audit process by tax authorities. Investment tax credits are recorded when received or when there is reasonable assurance that the credits will be realized. Upon recognition, amounts will be recorded as a reduction of research and development expenditures.

#### (n) Financial Instruments

The Company has designated its cash and cash equivalents, and amounts receivable as loans and receivables, which are measured at amortized cost. Amounts receivable include HST recoverable and other receivables. Accounts payable and accrued liabilities and other liabilities and charges are classified as other financial liabilities, which are measured at amortized cost.

#### (o) Short term Employee Benefits

Short-term employee benefit obligations including Company paid medical, dental and life insurance plans, are measured on an undiscounted basis and are expensed as the related service is provided.

#### (p) Provisions

A provision is recognized, if as a result of a past event, the Company has a present legal or constructive obligation that can be estimated reliably, and it is probable that an outflow of economic benefits will be required to settle the obligation. Presently the Company is not aware of the need for any material provisions nor has it recorded any except as otherwise disclosed in the financial statements.

#### (q) Lease payments

Payments made under operating leases are recognized as an expense on a straight line basis over the term of the lease. Lease incentives received, if any, are recognized as an integral part of the total lease expense over the term of the lease.

### (r) Standards, Amendments and Interpretations Not Yet Effective

Following is a listing of amendments, revisions and new IFRSs, which have been issued but are not effective until annual periods beginning after December 31, 2017.

IFRS 9 Financial Instruments, to replace IAS 39 and IFRIC 9, the effective date for which is fiscal periods beginning on or after January 1, 2018.

IFRS 15 Revenue from Contracts with Customers, to supersede the requirements in IAS 11, IAS 18, IFRIC 13, 15, 18 and SIC-31. The new standard is effective for annual periods beginning on or after January 1, 2018.

IFRS 16 Leases, to supersede the requirements in IAS 17, IFRIC 4, SIC-15 and SIC-17. The new standard is effective for annual periods beginning on or after January 1, 2019.

Management believes the new standards, effective January 1, 2018 will not have a material impact on future results and Financial Position of the Company.

## TITAN MEDICAL INC. Notes to the Financial Statements December 31, 2017 and 2016 (In U.S. Dollars)

# 3. <u>FURNITURE AND EQUIPMENT</u>

|                                  | <br>Computer<br>Equipment | <br>Furniture<br>and Fixtures | I  | Leasehold<br>mprovements | <br>Total     |
|----------------------------------|---------------------------|-------------------------------|----|--------------------------|---------------|
| Cost                             |                           |                               |    |                          |               |
| Balance at December 31, 2016     | \$<br>80,453              | \$<br>261,483                 | \$ | 172,601                  | \$<br>514,537 |
| Additions                        | <br>3,427                 | <br>-                         |    | -                        | <br>3,427     |
| Balance at December 31,2017      | \$<br>83,880              | \$<br>261,483                 | \$ | 172,601                  | \$<br>517,964 |
| Amortization & Impairment Losses |                           |                               |    |                          |               |
| Balance at December 31, 2016     | \$<br>71,103              | \$<br>261,483                 | \$ | 172,601                  | \$<br>505,187 |
| Amortization for the year        | <br>6,063                 | <br><u> </u>                  |    |                          | <br>6,063     |
| Balance at December 31, 2017     | \$<br>77,166              | \$<br>261,483                 | \$ | 172,601                  | \$<br>511,250 |
| Net Book Value                   |                           |                               |    |                          |               |
| At December 31, 2016             | \$<br>9,350               | \$<br>                        | \$ |                          | \$<br>9350    |
| At December 31, 2017             | \$<br>6,714               | \$<br>-                       | \$ | -                        | \$<br>6714    |
| PATENT RIGHTS                    |                           |                               |    |                          |               |
| Cost                             |                           |                               |    |                          |               |
| Balance at December 31, 2016     |                           |                               |    |                          | \$<br>776,717 |
| Additions                        |                           |                               |    |                          | 201,409       |
| Balance at December 31, 2017     |                           |                               |    |                          | \$<br>978,126 |
| Amortization & Impairment Losses |                           |                               |    |                          |               |
| Balance at December 31, 2016     |                           |                               |    |                          | \$<br>192,604 |
| Amortization for the year        |                           |                               |    |                          | <br>11,297    |
| Balance at December 31, 2017     |                           |                               |    |                          | \$<br>203,901 |
| Net Book Value                   |                           |                               |    |                          |               |
| At December 31, 2016             |                           |                               |    |                          | \$<br>584,113 |
| At December 31, 2017             |                           |                               |    |                          | \$<br>774,225 |
|                                  |                           |                               |    |                          | 9             |

#### 5. SHARE CAPITAL

| a) | Authorized: | unlimited number of common shares, no par value |
|----|-------------|-------------------------------------------------|
|    | Issued:     | 380,601,684 (December 31, 2016: 166,511,446)    |

Exercise prices of units, warrants and options are presented in Canadian currency as they are exercisable in Canadian dollars.

During the year 52,654,224 warrants had been exercised for total proceeds of \$9,438,577. The fair value of the exercised warrants had a value of \$7,953,581 which was reclassed from warrant liability to common stock.

On December 5, 2017 Titan completed an offering of securities made pursuant to an agency agreement dated November 30, 2017 between the Company and Bloom Burton Securities Inc. (the "Agent"). The company sold 46,000,000 Units under the Offering at a price of CDN \$0.50 per Unit for gross proceeds of approximately \$18,137,800 (\$16,517,424 net of closing costs including cash commission of \$1,246,185 paid in accordance with the terms of the agency agreement). Each Unit consisted of one Common Share of the Company and one Common Share purchase warrant, each warrant entitles the holder thereof to acquire one Common Share of the Company at an exercise price of CDN \$0.60 and expiring December 5, 2022. The warrants were valued at \$5,223,686 based on the value determined by the Black-Scholes model and the balance of \$12,914,114 was allocated to common shares.

Pursuant to the agency agreement in addition to the cash commission paid to the Agent, broker warrants were issued to the Agent which entitle the holder to purchase 3,160,500 Common Shares at a price of CDN \$0.50 per share prior to expiry on December 5, 2019.

On October 31, 2017 Titan completed the final closing of a private placement led by a group of U.S. robotic surgeons. 13,385,900 common shares of Titan were issued at a subscription price of CDN \$0.25 per Common Share for gross proceeds of \$2,677,326.

On June 29, 2017 Titan completed an offering of securities made pursuant to an agency agreement dated June 26, 2017 between the Company and Bloom Burton Securities Inc. (the "Agent"). The Company sold 48,388,637 Units under the Offering at a price of CDN \$0.15 per Unit for gross proceeds of approximately \$5,576,357 (\$4,838,002 net of closing costs including cash commission of \$382,689 paid in accordance with the terms of the agency agreement). Each Unit consisted of one Common Share of the Company and one Common Share purchase warrant, each warrant entitles the holder thereof to acquire one Common Share of the Company at an exercise price of CDN \$0.20 and expiring June 29, 2022. The warrants were valued at \$2,788,274 based on the value determined by the Black-Scholes model and the balance of \$2,788,083 was allocated to common shares.

Pursuant to the agency agreement, in addition to the cash commission paid to the Agent, broker warrants were issued to the Agent which entitle the holder to purchase 3,285,986 Common Shares at a price of CDN \$0.15 per share prior to expiry on June 29, 2019.

On July 21, 2017 Titan completed a second closing of an offering of securities made pursuant to an agency agreement dated June 26, 2017 between the Company and Bloom Burton Securities Inc. (the "Agent"). The Company sold an additional 11,117,000 Units under the Offering at a price of CDN \$0.15 per Unit for gross proceeds of approximately \$1,328,871 (\$1,200,788 net of closing costs including cash commission of \$93,021 paid in accordance with the terms of the agency agreement). Each Unit consisted of one Common Share of the Company and one Common Share purchase warrant, each warrant entitles the holder thereof to acquire one Common Share of the Company at an exercise price of CDN \$0.20 and expiring June 29, 2022. The warrants were valued at \$575,844 based on the value determined by the Black-Scholes model and the balance of \$753,027 was allocated to common shares.

Pursuant to the agency agreement in addition to the cash commission paid to the Agent, broker warrants were issued to the Agent which entitle the holder to purchase 778,190 Common Share at a price of CDN \$0.15 per share prior to expiry on June 29, 2019.

On March 16, 2017 Titan completed an offering of securities made pursuant to an agency agreement dated March 10, 2017 between the Company and Bloom Burton Securities Inc. (the "Agent"). The Company sold 21,467,200 Units under the Offering at a price of CDN \$0.35 per Unit for gross proceeds of approximately \$5,642,537 (\$5,039,817 net of closing costs including cash commission of \$394,316 paid in accordance with the terms of the agency agreement). Each Unit consisted of one Common Share of the Company and (i) one-half of one Common Share purchase warrant, each whole warrant entitling the holder thereof to acquire one Common Share of the Company at an exercise price of CDN \$0.40 and expiring March 16, 2019, and (ii) one-half of one Common Share purchase warrant, each whole warrant entitling the holder thereof to acquire on Common Share of the Company at an exercise price of CDN \$0.50 and expiring March 16, 2021. The warrants were valued at \$1,297,810 based on the value determined by the Black-Scholes model and the balance of \$4,344,727 was allocated to common shares.

Pursuant to the agency agreement, in addition to the cash commission paid to the Agent, broker warrants were issued to the Agent which entitle the holder to purchase 1,500,155 Common Shares at a price of CDN \$0.35 per share prior to expiry on March 16, 2019.

On September 20, 2016 Titan completed an offering of securities pursuant to an agency agreement dated September 13, 2016 between the Company, and Bloom Burton & Co. Limited and Echelon Wealth Partners Inc. (the "Agents"). The Company sold 17,083,333 Units under the Offering at a price of CDN \$0.60 per Unit for gross proceeds of \$7,749,000 (\$6,951,987 net of closing costs including cash commission of \$528,668 paid in accordance with the terms of the agency agreement). Each Unit comprised of one Common Share of Titan and one warrant. Each whole warrant entitles its holder to purchase one additional Common Share of Titan for CDN \$0.75 and will expire September 20, 2021. The warrants were valued at \$1,162,350 using a comparable warrant quoted in an active market, adjusted for differences in the terms of warrant and the balance of \$6,586,650 was allocated to common shares.

Pursuant to the agency agreement, in addition to the cash commission paid to the Agent, broker warrants were issued to purchase 1,165,494 Units. Each broker warrant entitles the holder thereof to acquire one Unit of the Company at the price of CDN \$0.60 for a period of 24 months following the closing date. Each Unit consists one Common Share of the Company and one Common Share purchase warrant. Each purchase warrant entitles the holder thereof to acquire one Share of the Company at an exercise price of CDN \$0.75 which expire September 20, 2021.

On October 27, 2016 the over-allotment option to the Company's September 20, 2016 offering of 17,083,333 Units at a price of CDN \$0.60 was partially exercised and the Company sold an additional 2,030,000 Units at the Offering Price of CDN \$0.60 for additional gross proceed of \$909,846 (\$845,181 net of closing costs including cash commission of \$63,689 paid in accordance with the terms of the agency agreement). Each Unit comprised of one Common Share of Titan and one warrant. Each whole warrant entitles its holder to purchase one additional Common Share of Titan for CDN \$0.75 and will expire September 20, 2021. The warrants were valued at \$121,313 based on the market value at the time and the balance of \$788,533 was allocated to common shares.

Pursuant to the agency agreement, in addition to the cash commission paid to the Agent, broker warrants were issued to purchase 142,100 Units. Each broker warrant entitles the holder thereof to acquire one Common Share of the Company at the price of CDN \$0.60 for a period of 24 months following the closing date.

On March 31, 2016 Titan completed an offering of securities pursuant to an agency agreement dated March 24, 2016 between the Company and Bloom Burton & Co. Limited (the "Agent"). The Company sold 15,054,940 Units under the Offering price of CDN \$1.00 per Unit for gross proceeds of approximately \$11,607,359 (\$10,571,919 net of closing costs including cash commission of \$796,324 paid in accordance with the terms of the agency agreement). Each Unit comprised of one Common Share of Titan and one warrant. Each whole warrant entitles its holder to purchase one additional Common Share of Titan for CDN \$1.20 and will expire March 31, 2021. The warrants were valued at \$1,741,104 using a comparable warrant quoted in an active market, adjusted for differences in the terms of warrant and the balance of \$9,866,255 was allocated to common shares.

Pursuant to the agency agreement, in addition to the cash commission paid to the Agent, broker warrants were issued to purchase 1,032,845 Units. Each broker warrant entitles the holder thereof to acquire one Unit of the Company at the price of CDN \$1.00 for a period of 24 months following the closing date. Each Unit consists of one Common Share of the Company and one Common Share purchase warrant. Each purchase warrant entitles the holder thereof to acquire one Share of the Company at an exercise price of CDN \$1.20 which expire March 31, 2021.

On April 14, 2016 the over-allotment option to the Company's March 31, 2016 offering of 15,054,940 Units at a price of CDN \$1.00 per Unit was exercised in full and the Company sold an additional 2,258,241 Units at the Offering Price of CDN \$1.00 for additional gross proceeds of \$1,759,396 (\$1,633,407 net of closing costs including commission of \$123,158 paid in accordance with the terms of the agency agreement). Each Unit comprised of one Common Share of Titan and one warrant. Each whole warrant entitles its holder to purchase one additional Common Share of Titan for CDN \$1.20 and will expire March 31, 2021. The warrants were valued at \$290,300 using a comparable warrant quoted in an active market, adjusted for differences in the terms of warrant and the balance of \$1,469,095 was allocated to common shares.

Pursuant to the agency agreement, in addition to the cash commission paid to the Agent, broker warrants were issued to purchase 158,076 Units. Each broker warrant entitles the holder thereof to acquire one Unit of the Company at the price of CDN \$1.00 for a period of 24 months following the closing date. Each Unit consists one Common Share of the Company and one Common Share purchase warrant. Each purchase warrant entitles the holder thereof to acquire one Share of the Company at an exercise price of CDN \$1.20 which expire April 14, 2021.

On February 12, 2016 Titan completed an offering of securities made pursuant to an agency agreement dated February 9, 2016 between the Company and Bloom Burton & Co. Limited (the "Agent"). The Company sold 11,670,818 Units under the Offering at a price of CDN \$0.90 per Unit for gross proceeds of approximately \$7,592,101 (\$6,844,046 net of closing costs including cash commission of \$516,622 paid in accordance with the terms of the agency agreement). Each Unit consists of one Common Share of the Company and one Common Share purchase warrant. Each whole warrant entitles the holder thereof to acquire one Share of the Company at an exercise price of CDN \$1.00 which expire February 12, 2021. The warrants were valued at \$1,518,420 using a comparable warrant quoted in an active market, adjusted for differences in the terms of warrant and the balance of \$6,073,681 was allocated to common shares.

Pursuant to the agency agreement, in addition to the cash commission paid to the Agent, broker warrants were issued to purchase 916,443 Units. Each broker warrant entitles the holder thereof to acquire one Unit of the Company at the price of CDN \$0.90 for a period of 24 months following the closing date. Each Unit consists of one Common Share of the Company and one Common Share purchase warrant. Each purchase warrant entitles the holder to acquire one Common Share of the Company at an exercise price of CDN \$1.00 for a period of 60 months from the date of closing.

On February 23, 2016 the over-allotment option in connection with the February 12, 2016 completed public offering of 11,670,818 Units had been exercised in full. The company sold an additional 1,746,789 Units at the offering price of CDN \$0.90 per Unit for gross proceeds to Titan of approximately \$1,139,937 (\$1,029,605 net of closing costs including cash commission of \$79,796 paid in accordance with the terms of the agency agreement).

Each Unit consists of one common share of the Company and one Common Share purchase warrant. Each whole warrant entitles the holder thereof to acquire one Share of the Company at an exercise price of CDN \$1.00 which expire February 12, 2021. The warrants were valued at \$215,321 using a comparable warrant quoted in an active market, adjusted for differences in the terms of warrant and the balance of \$924,616 was allocated to common shares.

On November 23, 2015 Titan closed a private placement of 4,290,280 common shares of Titan at a subscription price of CDN \$1.23 per common share for gross proceeds of \$4,000,000 with Longtai Medical Inc. Under the Agreement Titan granted to Longtai exclusive rights to negotiate for an exclusive marketing, sales and distribution agreement for Titan's SPORT Surgical System in the Asia Pacific region for a period of 183 days. Longtai paid to Titan \$2,000,000 as a deposit toward the Distributorship Agreement. On August 24, 2016 the parties agreed to modify their previous three month extension to monthly progress reviews. Longtai will concurrently with the signing of the Distributorship Agreement, subscribe for and purchase an additional \$4,000,000 worth of Common Shares at a share issue price equal to the 5-day VWAP (less a 12.5% discount).

On April 28, 2017 the Company announced that it had terminated negotiations with Longtai Medical Inc. for the marketing, sales and Distribution Agreement and the Company will repay the \$2,000,000 deposit to Longtai Medical Inc.

On August 24, 2017 Titan completed a subscription agreement with Longtai for the equity conversion of Longtai's \$2.0 million deposit. Under the terms of the subscription agreement dated July 31, 2017, Titan issued to Longtai 16,892,000 Units at an assigned issue price of CDN \$0.15 per Unit. Each Unit consists of one common share and one common share purchase warrant, with each warrant exercisable for one Common Share at an exercise price of CDN \$0.20 per warrant and will expire August 24, 2022. The warrants were valued at \$822,372 based on the value determined by the Black-Scholes model. The common shares were valued at \$1,887,411 based on the market value on August 24, 2017 of CDN \$0.14. The warrant and the common share were valued at fair value in accordance with International Financial Reporting Interpretations Committee Interpretation #19-Extinguishing Financial Liabilities ("IFRIC 19"). A loss of \$709,782 was incurred on extinguishment which is included in the Gain (Loss) on change in value of warrant liability in the statement of net and comprehensive loss.

#### b) Warrants, Stock Options and Compensation Options

Subject to shareholder approval, Titan has reserved and set aside up to 10% of the issued and outstanding shares of Titan for granting of options to employees, officers, consultants and advisors. At December 31, 2017, 20,311,899 common shares (December 31, 2016: 9,448,895) were available for issue in accordance with the Company's stock option plan. The terms of these options are determined by the Board of Directors. A summary of the status of the Company's outstanding stock options as of December 31, 2017 and December 31, 2016 and changes during the periods ended on those dates is presented in the following table:

|                    |                                   | Year Ended<br>December 31, 2017                           |                                   | Ended<br>er 31, 2016                                      |
|--------------------|-----------------------------------|-----------------------------------------------------------|-----------------------------------|-----------------------------------------------------------|
|                    | Number of<br><u>stock options</u> | Weighted-average<br><u>exercise price</u><br><u>(CDN)</u> | Number of<br><u>stock options</u> | Weighted-average<br><u>exercise price</u><br><u>(CDN)</u> |
| Balance, beginning | 7,202,250                         | \$1.10                                                    | 2,897,763                         | \$1.20                                                    |
| Granted            | 11,844,909                        | \$0.52                                                    | 4,660,117                         | \$1.01                                                    |
| Exercised          | -                                 | \$0.00                                                    | (9,000)                           | \$0.56                                                    |
| Expired/forfeited  | (1,298,890)                       | \$1.16                                                    | (346, 630)                        | \$1.56                                                    |
| Balance, ending    | 17,748,269                        | \$0.71                                                    | 7,202,250                         | \$1.10                                                    |
|                    |                                   |                                                           |                                   | 13                                                        |

## 5. <u>SHARE CAPITAL</u> (continued)

The weighted-average remaining contractual life and weighted-average exercise price of options outstanding and of options exercisable as at December 31, 2017 are as follows:

| Options Outstanding     |                       |            |                                                           |                        |
|-------------------------|-----------------------|------------|-----------------------------------------------------------|------------------------|
| Exercise<br>Price (CDN) | Number<br>Outstanding |            | Weighted-average<br>remaining<br>contractual life (years) | Options<br>Exercisable |
|                         | \$0.15                | 568,059    | 6.04                                                      | 468,059                |
|                         | \$0.16                | 91,206     | 2.71                                                      | 91,206                 |
|                         | \$0.32                | 33,150     | 2.95                                                      | 33,150                 |
|                         | \$0.39                | 200,000    | 2.93                                                      | 100,000                |
|                         | \$0.40                | 58,429     | 2.93                                                      | 58,429                 |
|                         | \$0.43                | 1,500,000  | 6.30                                                      | -                      |
|                         | \$0.48                | 568,493    | 6.86                                                      | -                      |
|                         | \$0.50                | 500,000    | 6.11                                                      | -                      |
|                         | \$0.56                | 663,368    | 0.59                                                      | 663,368                |
|                         | \$0.57                | 8,325,572  | 6.05                                                      | -                      |
|                         | \$0.83                | 49,591     | 0.22                                                      | 49,591                 |
|                         | \$0.96                | 305,107    | 0.97                                                      | 305,107                |
|                         | \$1.00                | 3,171,558  | 3.65                                                      | 1,716,183              |
|                         | \$1.02                | 183,587    | 2.98                                                      | 146,658                |
|                         | \$1.08                | 564,292    | 3.08                                                      | 564,292                |
|                         | \$1.39                | 19,746     | 1.96                                                      | 19,746                 |
|                         | \$1.51                | 16,796     | 2.61                                                      | 16,796                 |
|                         | \$1.72                | 461,139    | 2.44                                                      | 368,381                |
|                         | \$1.76                | 106,096    | 1.18                                                      | 106,096                |
|                         | \$1.94                | 362,080    | 1.39                                                      | 362,080                |
|                         |                       | 17,748,269 | 3.20                                                      | 5,069,142              |

The weighted average exercise price of options outstanding is CDN \$0.71 and CDN \$0.97 for options that are exercisable.

Options are granted to Directors, Officers, Employees and Consultants at various times. Options are to be settled by physical delivery of shares.

| Grant date/Person entitled                                       | Number of Options | Vesting Conditions                                                                       | Contractual life of Options |
|------------------------------------------------------------------|-------------------|------------------------------------------------------------------------------------------|-----------------------------|
| January 27, 2016, option grants to<br>Consultants and Employees  | 644,292           | immediately                                                                              | 5 years                     |
| August 24, 2016, options granted to<br>Directors and Consultants | 1,129,206         | immediately                                                                              | 5 years                     |
| August 24, 2016, options granted to<br>Employees                 | 2,886,619         | Vest as to 1/3 of the total number of<br>Options granted, every year from<br>Option Date | 5 years                     |
| January 17, 2017, option grants to<br>Employees                  | 8,325,572         | Vest as to ¼ of the total number of<br>Options granted, every year from<br>Option Date   | 7 years                     |
| February 7, 2017 option grants to<br>Employees                   | 500,000           | Vest as to 1/4 of the total number of<br>Options granted, every year from<br>Option Date | 7 years                     |
| April 17, 2017, option grants to<br>Employees                    | 1,500,000         | Vest as to 1/4 of the total number of<br>Options granted, every year from<br>Option Date | 7 years                     |
| September 7, 2017, options granted to Consultants                | 200,000           | Half vest in 3 months and the remaining half in 6 months                                 | 3 years                     |
| September 7, 2017, options granted to                            | 368,059           | immediately                                                                              | 7 years                     |
| Directors September 15,2017, options granted to Consultants      | 91,206            | immediately                                                                              | 3 years                     |
| October 6, 2017, options granted to<br>Consultants               | 33,150            | immediately                                                                              | 3 years                     |
| November 8, 2017 option grants to<br>Employees                   | 568,493           | Vest as to 1/4 of the total number of<br>Options granted, every year from<br>Option Date | 7 years                     |
| December 4, 2017, options granted to Consultants                 | 58,429            | immediately                                                                              | 3 years                     |
| December 4, 2017, options granted to Consultants                 | 200,000           | Half vest immediately and the remaining half in 12 months                                | 3 years                     |

## 5. <u>SHARE CAPITAL</u> (continued)

## Inputs for Measurement of Grant Date Fair Values

The grant date fair value of all share-based payment plans was measured based on the Black-Scholes formula. Expected volatility was estimated by considering historic average share price volatility. The inputs used in the measurement of fair values at grant date of the share-based option plan are as follows:

|                                 | 2017            | 2016            |
|---------------------------------|-----------------|-----------------|
|                                 |                 |                 |
| Fair Value at grant date (CDN)  | \$0.08 - \$0.37 | \$0.28 - \$0.52 |
| Share price at grant date (CDN) | \$0.15 - \$0.59 | \$0.68 - \$1.08 |
| Exercise price (CDN)            | \$0.15 - \$0.57 | \$1.00 - \$1.08 |
| Expected Volatility             | 82.4% - 90.1%   | 73.34% - 79.67% |
| Option Life                     | years           | 3-4 3 years     |
| Expected dividends              | nil             | nil             |
| Risk-free interest rate         | 0.89% -1.63 %   | 0.44% - 0.57%   |
| (based on government bonds)     |                 |                 |

The following is a summary of outstanding warrants included in Shareholder's Equity as at December 31, 2017 and December 31, 2016 and changes during the periods then ended.

|                           | Decemb                | December 31, 2017 |           | December 31, 2016     |    | 2016        |
|---------------------------|-----------------------|-------------------|-----------|-----------------------|----|-------------|
|                           | Number of<br>Warrants |                   | Amount    | Number of<br>Warrants |    | Amount      |
| Opening Balance           | 5,651,434             | \$                | 855,800   | 14,257,434            | \$ | 4,044,192   |
| Expired during the year   |                       |                   |           |                       |    |             |
| Exercise Price CDN \$1.77 |                       |                   |           |                       |    |             |
| Expiry March 14, 2017     | (390,729)             |                   | (113,883) |                       |    |             |
| Expired during the year   |                       |                   |           |                       |    |             |
| Exercise Price CDN \$1.75 |                       |                   |           |                       |    |             |
| Expiry December 22, 2016  |                       |                   |           | (3,484,500)           |    | (1,310,451) |
| Expired during the year   |                       |                   |           |                       |    |             |
| Exercise Price CDN \$2.00 |                       |                   |           |                       |    |             |
| Expiry June 21, 2016      |                       |                   |           | (5,121,500)           |    | (1,877,941) |
| Ending Balance            | 5,260,705             | \$                | 741,917   | 5,651,434             | \$ | 855,800     |

Outstanding warrants have an exercise price of CDN \$1.25 and expire March 13, 2018.

## 6. <u>WARRANT LIABILTY</u>

|                                                | December              | December 31, 2016 |                       |                 |               |
|------------------------------------------------|-----------------------|-------------------|-----------------------|-----------------|---------------|
|                                                | Number of<br>Warrants | Amount            | Number of<br>Warrants | Amount          | t             |
| Opening Balance                                | 77,451,086            | 2,365,691         | 27,676,965            | \$ 2,137        | 1,751         |
| Issue of warrants expiring, February 12, 2021  | -                     | -                 | 13,417,607            | 1,733           | 3,741         |
| Issue of warrants expiring, March 31, 2021     | -                     | -                 | 17,313,181            | 2,031           | ,404          |
| Issue of warrants expiring, September 20, 2021 | -                     | -                 | 17,083,333            | 1,162           | ,350          |
| Issue of warrants expiring, October 27, 2017   | -                     | -                 | 2,030,000             | 121             | 1,313         |
| Issue of warrants expiring, March 16, 2019     | 10,733,600            | 572,326           | -                     |                 | -             |
| Issue of warrants expiring, March 16, 2021     | 10,733,600            | 725,484           | -                     |                 | -             |
| Issue of warrants expiring, June 29, 2022      | 59,505,637            | 3,364,118         | -                     |                 | -             |
| Issue of warrants expiring, August 24, 2022    | 16,892,000            | 822,372           | -                     |                 | -             |
| Issue of warrants expiring, December 5, 2022   | 46,000,000            | 5,223,686         | -                     |                 | -             |
| Warrants exercised during the year             | (52,654,224)          | (7,953,581)       | (70,000)              | (9              | 9,654)        |
| Warrants expired during the year               | (20,664,770)          |                   | -                     |                 | -             |
| Foreign exhange adjustment during the year     |                       | 305,475           | -                     | 138             | 3,799         |
| Fair value adjustment during the year          |                       | 12,423,889        |                       | (4,950          | <u>,013</u> ) |
| Ending Balance                                 | 147,996,929           | \$ 17,849,460     | 77,451,086            | <u>\$ 2,365</u> | ,691          |

In addition to the warrants listed above, at December 31, 2017, the Company has issued and outstanding, 8,179,512 broker unit warrants expiring between February 23, 2018 and December 5,2019.

# 7. <u>INCOME TAXES</u>

#### a) Current Income Taxes

A reconciliation of combined federal and provincial corporate income taxes at the Company's effective tax rate of 26.5% (2016 - 26.5%) follows.

|                                                                | Dee | December 31 2017 |    | ecember 31, 2016 |
|----------------------------------------------------------------|-----|------------------|----|------------------|
| Net Loss before income taxes                                   | \$  | (33,586,984)     | \$ | (23,323,496)     |
| Income taxes at statutory rates                                | \$  | (8,900,551)      | \$ | (6,180,726)      |
| Tax effect of expenses not deductible for income tax purposes: | Ψ   | (0,500,551)      | Ψ  | (0,100,720)      |
| Tax/FX rate changes and other adjustments                      |     | (27,053)         |    | (39,497)         |
| Permanent differences                                          |     | 3,975,072        |    | (1,040,695)      |
| Unrecognized share issue costs                                 |     | (554,252)        |    | (637,468)        |
| Total tax assets                                               |     | (5,506,784)      |    | (7,898,386)      |
| Tax assets not recognized                                      |     | 5,506,784        |    | 7,898,386        |
|                                                                | \$  | -                | \$ | <u> </u>         |
|                                                                |     |                  |    | 17               |

## 7. <u>INCOME TAXES</u>(continued)

## b) Deferred Income Taxes

Deferred income tax assets and liabilities result primarily from differences in recognition of certain timing differences that give rise to the Company's future tax assets (liabilities) and are as follows:

|                                           | Dece | mber31, 2017 | December 31, 2016 |
|-------------------------------------------|------|--------------|-------------------|
|                                           |      |              |                   |
| Non-capital losses<br>Qualifying research | \$   | 37,012,271   | \$ 31,620,196     |
| and development expenditures              |      | 1,493,309    | 1,663,229         |
| Share issue costs and other               |      | 1,562,116    | 1,277,488         |
| Total tax assets                          |      | 40,067,696   | 34,560,913        |
|                                           |      |              |                   |
| Tax assets not recognized                 |      | (40,067,696) | (34,560,913)      |
| Net deferred tax assets                   | \$   | -            | <u> </u>          |

In assessing the realizability of deferred tax assets, management considers whether it is probable that some portion or all the deferred tax assets will not be realized. The ultimate realization of deferred tax assets is dependent upon the generation of future taxable income during the periods in which those temporary differences become deductible. Management considers the scheduled reversal of deferred tax liabilities, projected future taxable income and tax planning strategies in making this assessment. Management, based on IFRS criteria, has determined, at this time, not to recognize its deferred tax assets.

## c) Losses carried forward

The Company has non-capital losses of approximately \$139,668,948 available to reduce future income taxes. The non- capital losses expire approximately as follows:

| 2025 | •  |             |
|------|----|-------------|
| 2027 | \$ | 786,557     |
| 2028 |    | 169,954     |
| 2029 |    | 186,708     |
| 2030 |    | 2,003,594   |
| 2031 |    | 12,735,836  |
| 2032 |    | 7,260,729   |
| 2033 |    | 8,856,497   |
| 2034 |    | 15,819,741  |
| 2035 |    | 43,934,918  |
| 2036 |    | 28,310,254  |
| 2037 |    | 19,604,159  |
|      | \$ | 139,668,948 |

## 7. <u>INCOME TAXES</u>(continued)

The Company has accumulated Qualifying Research and Development expenses of \$5,635,128 from prior years research and development. These expenditures may be carried forward indefinitely and used to reduce taxable income in future years.

As a result of a recent Canada Revenue Agency (CRA) audits completed in 2017 and 2016, regarding Titan's 2012 and 2011 SR&ED claim, the 2012 loss of \$6,517,436 has been adjusted to \$7,260,729 and the 2011 loss of \$9,423,694 has been adjusted to \$12,735,836. The qualifying SR&ED expenditures has also been adjusted from \$9,439,430 to \$5,635,128. CRA concluded that the claimed work did not satisfy the SR&ED criteria. Titan is appealing this decision by CRA.

#### d) Investment Tax Credits

At December 31, 2017, the Company has \$1,167,560 (2016 - \$1,354,364) of unclaimed investment tax credits available to reduce federal income taxes payable in future years. If not utilized, these investment tax credits will start expiring in 2028. The 2017 and 2016 amounts have been adjusted to reflect changes due to the CRA audit.

At December 31, 2017, the Company has \$237,997 (2016 – \$282,002) of unclaimed Ontario Research and Development Tax Credit (ORDTC) available to reduce Ontario income taxes payable in future years. If not utilized, these ORDTC will start expiring in 2029. The 2017 and 2016 amounts have been adjusted to reflect changes due to the CRA audit.

#### 8. <u>COMMITMENT</u>S

The Company has 4,477 square feet leased at a former location for CDN \$4,673 per month through January 31, 2019. This space has been sublet for CDN \$4,099 per month through the lease term.

For its corporate office located at 170 University Avenue, Toronto Ontario, effectiveSeptember 18, 2017 the Company extended its lease term for a period of 22 months, commencing February 1, 2018 at a monthly rent of CDN \$9,969.

As a part of its program of research and development around the SPORT Surgical System, the Company has outsourced certain aspects of the design and development to a U.S. based technology and development company. At December 31,2017, \$4,742,928 in purchase orders remains outstanding. The Company also has on deposit with this same U.S. supplier\$2,172,943 to be applied against future invoices. Commitments from another U.S supplier of technical services totaling \$291,600 also remains outstanding at December 31, 2017. In addition, we maintain a deposit of \$365,491 with two other U.S based development companies.

The Company has entered into a developmental agreement with a supplier that will require payments to be made to them, in future years, based on the achievement, by the Company, of certain milestones which could total up to \$450,000.

## 9. <u>RELATED PARTY TRANSACTION</u>S

During the year ended December 31, 2017, transactions between the Company and directors, officers and other related parties were related to compensation matters in the normal course of operations and are measured at the exchange amount, which is the amount of consideration established and agreed to by the related parties.

Compensation to the Executive Officers amounted to \$1,587,667 for the year ended December 31, 2017 compared to \$967,363 for the same period in 2016.

During the year, an individual related to a former senior executive provided consulting services in support of marketing efforts for the European market. Compensation of \$24,720 plus reimbursement of appropriate expenses was paid to the individual. This individual is no longer employed by the Company.

Officers and Directors of the Company control approximately 1.12% of the Company.

|                           | December         | December 31, 2017 |                  | 1,2016 |
|---------------------------|------------------|-------------------|------------------|--------|
|                           | Number of Shares | %                 | Number of Shares | %      |
| John Barker               | 711,432          | 0.19              | 250,632          | 0.15   |
| Martin Bernholtz          | 3,071,500        | 0.81              | 1,571,500        | 0.94   |
| John Hargrove             | -                | -                 | 298,200          | 0.18   |
| David McNally             | 50,000           | 0.01              | -                | -      |
| Stephen Randall           | 357,307          | 0.09              | 102,800          | 0.06   |
| Reiza Rayman              | -                | -                 | 4,357,117        | 2.62   |
| John Schellhorn           | 8,826            | -                 | -                | -      |
| John Valvo                | -                | -                 | 25,000           | 0.02   |
| Bruce Wolff               | 60,299           | 0.02              | 17,552           | 0.01   |
|                           |                  |                   |                  |        |
| Total                     | 4,259,364        | 1.12              | 6,622,801        | 3.98   |
|                           |                  |                   |                  |        |
| Common Shares Outstanding | 380,601,684      | 100%              | 166,511,446      | 100%   |
|                           |                  |                   |                  |        |

## 10. <u>FINANCIAL INSTRUMENT</u>S

The Company's financial instruments consist of cash and cash equivalents, amounts receivable, accounts payable and accrued liabilities and other liabilities and charges. The fair value of these financial instruments approximates their carrying values, unless otherwise noted, due to the short maturities of these instruments or the discount rate applied. Warrant liabilities are valued at fair value as described in note 2 (h).

The Company's risk exposures and their impact on the Company's financial instruments are summarized below:

#### (a) Credit risk

The Company's credit risk is primarily attributable to cash and cash equivalents and amounts receivable. The Company has no significant concentration of credit risk arising from operations. Cash and cash equivalents are held with reputable financial institutions, from which management believes the risk of loss to be remote. Financial instruments included in amounts receivable consists of HST tax due from the Federal Government of Canada and interest receivable from money market funds. Management believes that the credit risk concentration with respect to financial instruments included in amounts receivable is remote.

### (b) Liquidity risk

The Company's approach to managing liquidity risk is to ensure that it will have sufficient liquidity to meet liabilities when due and when appropriate will scale back its operations. As at December 31, 2017, the Company had cash and cash equivalents of 26,130,493 (December 31, 2016 -4,339,911) to settle current liabilities of 2,218,352 (December 31, 2016 - 4,232,201) excluding warrant liabilities of 17,849,460 (December 31, 2016 - 2,365,691).

The Company currently does not generate any revenue or income (other than interest income on its cash balances) and accordingly, it is (and it will be for the foreseeable future) dependent primarily upon equity financing for any additional funding required for development and operating expenses.

The ability of the Company to arrange such financing in the future will depend in part upon prevailing capital market conditions and the business success of the Company. There can be no assurance that the Company will be successful in its efforts to arrange additional financing on terms satisfactory to the Company. If additional financing is raised by the issuance of shares or convertible securities from treasury, control of the Company may change, and shareholders may suffer additional dilution. If adequate funds are not available, or are not available on acceptable terms, the Company may not be able to take advantage of opportunities, or otherwise to continue its technology development program at its current pace.

The Company expects that approximately US \$16.5 million, will be required by the end of 2018 to maintain its currently anticipated pace of product development. If additional funding is not available, the pace of the Company's development plan may be reduced.

## (c) Market risk

Market risk is the risk of loss that may arise from changes in market factors such as interest rates and foreign exchange rates.

#### (i) Interest rate risk

The Company has cash balances and no interest-bearing debt. The Company's current policy is to invest excess cash in one-day cashable high interest savings accounts. The Company periodically monitors the investments it makes and is satisfied with the credit risk of its bank.

## 10. <u>FINANCIAL INSTRUMENTS (continued)</u>

## (ii) Foreign currency risk

The Company's functional currency is the U.S. dollar. Expenditures transacted in foreign currency are converted to U.S. dollars at the rate in effect when the transaction is initially booked. The gain or loss on exchange, when the transaction is settled, is booked to the Statement of Net and Comprehensive Loss. Management acknowledges that there is a foreign exchange risk derived from currency conversion and believes this risk to be low as the Company now maintains a minimum balance of Canadian dollars.

## (d) Sensitivity analysis

Cash equivalents include cash balances and amounts on deposit in high interest savings account. Sensitivity to a plus or minus 1% change in interest rates could affect annual net loss by \$257,762 (December 31,2016 - \$42,115) based on the current level of cash invested in cash equivalents.

A strengthening of the U.S. dollar at December 31, 2017, as indicated below, against Canadian current assets and accounts payable and accrued liabilities including warrant liability of CDN \$509,371 and \$22,813,047 respectively (December 31, 2016 - \$178,516 and \$3,529,278) would result in increased equity and an increased profit for the period of \$888,913 (December 31, 2016, increased equity and an increase profit of \$124,782) as shown on the chart below. This analysis is based on foreign currency exchange rate variances that the Company considers to be reasonably possible at the end of the reporting period. The analysis assumes that all other variables, in particular, interest rates, remain constant. The analysis is performed on the same basis for December 31, 2016.

| December 31, 2017                            | Profit or (Loss) |          |
|----------------------------------------------|------------------|----------|
| 5% strengthening                             |                  |          |
| CDN current assets                           | \$               | (20,301) |
| CDN Accounts payable and accrued liabilities | \$               | 909,214  |
|                                              | \$               | 888,913  |
| December 31, 2016                            |                  |          |
| 5% strengthening                             |                  |          |
| CDN current assets                           | \$               | (6,648)  |
| CDN Accounts payable and accrued liabilities | \$               | 131,430  |
|                                              | \$               | 124,782  |

A weakening of the U.S. dollar against the Canadian dollar at December 31, 2017 and December 31, 2016 would have had the equal but opposite effect on the above currencies to the amounts shown above, on the basis that all other variables remain constant.

## 11. <u>SEGMENTED REPORTIN</u>G

The Company operates in a single reportable operating segment - the research and development of SPORT, the next generation of surgical robotic platform.

### 12. <u>CAPITAL MANAGEMEN</u>T

The Company's capital is composed of shareholders' equity. The Company manages its capital structure and makes adjustments to it, based on the funds available to the Company, to support the development of its SPORT Surgical Platform (SPORT). The Board of Directors does not establish quantitative return on capital criteria for management, but rather relies on the expertise of the Company's management to sustain future development of the SPORT. The Company has further progress to make in the development of the SPORT and anticipates that the cost of completion will exceed its current resources. Accordingly, the Company will be dependent on external financing to fund a portion of its future activities. To carry out the completion of the SPORT and pay for administrative costs, the Company will spend its existing given the relative size of the Company, is reasonable. There were no changes in the Company's approach to capital management during the year ended December 31, 2017. The Company is not subject to externally imposed capital requirements.

## 13. <u>EVENTS AFTER THE REPORTING DAT</u>E

On January 8, 2018 the Company issued 75,000 common shares of Titan to a consultant of the Company pursuant to a consultant agreement dated September 7, 2017.

On January 19, 2018 the Company granted 8,218,452 incentive stock options to Officers, employees and consultants, pursuant to incentive stock option plan. The stock options vest the earlier of the date of commercialization or January 19, 2021 at a price of CDN \$0.50.

#### TITAN MEDICAL INC. MANAGEMENT'S

#### DISCUSSION AND ANALYSIS

## FOR THE YEAR ENDED DECEMBER 31, 2017

## (IN UNITED STATES DOLLARS)

This Management's Discussion and Analysis ("MD&A") is dated February 13, 2018.

This MD&A provides a review of the performance of Titan Medical Inc. ("Titan" or the "Company") and should be read in conjunction with its audited financial statements for the year ended December 31, 2017 (and the notes thereto) (the "Financial Statements"). The Financial Statements have been prepared in accordance with International Financial Reporting Standards ("IFRS"). All financial figures are in United States Dollars except where otherwise noted.

### Internal Control over Financial Reporting

During the year ended December 31, 2017, no changes were made to the Company's internal control over financial reporting that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

#### Forward-Looking Statements

This discussion includes certain statements that may be deemed "forward-looking statements". All statements in this discussion other than statements of historical facts that address future events, developments or transactions that the Company expects, are forward-looking statements. These forward-looking statements are made as of the date of this MD&A. Forward-looking statements are frequently, but not always, identified by words such as "expects", "expected", "expectation", "anticipates", "believes", "intends", "estimates", "predicts", "potential", "targeted", "plans", "possible", "milestones", "objectives" and similar expressions, or statements that events, conditions or results "will", "may", "could", or "should" occur or be achieved. Forward-looking statements that appear in this MD&A include: the Company is committed to developing its robotic surgical system with the objective of substantially improving upon minimally invasive surgery; the Company aims to pursue a broad set of surgical indications for the SPORT Surgical System, including general abdominal, gynecologic, urologic and colorectal procedures; the SPORT Surgical System is being developed with the goal of inserting the interactive multi-articulating instruments and the 3D high definition vision system into the patient's body cavity through a single incision; the Company continues to explore in-licensing opportunities for technologies that may be used in conjunction with the Company's robotic surgical system; the Company anticipates expanding its patent portfolio by filing patent applications as it progresses in the development of robotic surgical technologies and by licensing suitable technologies; the Company's current plan is to focus on the development and commercialization of the SPORT Surgical System at estimated incremental costs and according to the timeline as set forth in the table below; the Company has decided to build additional prototypes and develop more advanced instruments and training systems for expanded use for additional surgi

Although the Company believes the expectations expressed in such forward-looking statements are based on reasonable assumptions, such statements are not guarantees of future performance and actual results or developments may differ materially from those in the forward-looking statements. Forward-looking statements are statements about the future and are inherently uncertain, and actual results of the Company or other future events or conditions may differ materially from those reflected in the forward-looking statements due to a variety of risks, uncertainties and other factors, such as current global financial conditions, dependence on key personnel, conflicts of interest, obtaining of or cost of additional financing, strategic alliances, uncertainty as to product development and commercialization milestones, results of operations, competition, technological advancements, rapidly changing markets, uncertain market, uncertain acceptance of the Company's technology or intellectual property, infringement of intellectual property rights, government regulation, changes in government policy, changes in accounting and tax rules, regulatory inquiries, requirements and approvals, contingent liabilities, manufacturing and product defects, history of losses, stock price volatility, future share sales, limited operating history, fluctuating financial results and currency fluctuations. Please also refer to the risk factors set forth starting on page 16 of the Company's Annual Information Form for the 2016 fiscal year, available on SEDAR at <u>www.sedar.com</u>, which are expressly incorporated by reference into the MD&A.

There may be other factors that cause actions, events or results not to be as anticipated, estimated or intended. Other than as specifically required by law, the Company undertakes no obligation to update any forward-looking statement to reflect events or circumstances after the date on which such statement is made, or to reflect the occurrence of unanticipated events, whether because of new information, future events or results or otherwise. Investors are cautioned that any such statements are not guarantees of future performance and that actual results or developments may differ materially from those projected in the forward-looking statements. Accordingly, investors should not place undue reliance on forward-looking statements.

#### History and Business

The Company is, and since July 28, 2008 has been, incorporated under the Business Corporations Act (Ontario).

The address of the Company's corporate office and its principal place of business is 170 University Avenue, Suite 1000, Toronto, Ontario, Canada M5H 3B3.

The Company was formed by way of amalgamation under the *Business Corporations Act* (Ontario) on July 28, 2008. Titan does not have any subsidiaries. The Company is committed to developing its robotic surgical system for use in connection with minimally invasive surgery (surgery without large incisions). From inception, the Company has focused on research and development toward its robotic surgical technology and building its intellectual property portfolio, trade secrets and scientific and technical knowledge base.

# **Overall Performance**

The Company's business is focused on research and development through to the planned commercialization of computer-assisted robotic surgical technologies for application in minimally invasive surgery ("MIS"). The Company is currently developing the SPORT Surgical System, a single-port robotic surgical system. The SPORT Surgical System is comprised of a surgeon- controlled patient cart that includes a 3D high definition vision system and multi-articulating instruments for performing MIS procedures, and a surgeon workstation that provides the surgeon with an ergonomic interface to the patient cart and a 3D endoscopic view inside the patient's body during MIS procedures. With the SPORT Surgical System, the Company aims to pursue a broad set of surgical indications, including general abdominal, gynecologic and urologic procedures.

Development of the SPORT Surgical System has proceeded in response to "voice of customer" feedback and, consultation with medical technology development firms and input from the Company's Surgeon Advisory Board (the "Surgeon Advisory Board") comprised of key opinion leaders in targeted fields. This approach has allowed the Company to design a robotic surgical system that is intended to include the traditional advantages of robotic surgery, including 3D stereoscopic imaging and restoration of instinctive control, as well as new and enhanced features, including an advanced surgeon workstation incorporating a 3D high definition display providing a more ergonomically friendly user interface and a patient cart with enhanced instrument dexterity. Overall, the surgical system is designed to be adapted to the needs of the surgeon, rather than the surgeon having to adapt to the system.

The SPORT Surgical System patient cart is being developed to deliver interactive multi- articulating instruments and a 3D high definition vision system into a patient's abdominal body cavity through a single access port. The design of the patient cart includes an insertion tube of approximately 19-millimeter (mm) diameter, capable of insertion into the body cavity through a skin incision of approximately 25mm. The insertion tube includes a collapsible distal end portion incorporating a 3D high definition camera module that once inserted, is configured to deploy into a working configuration wherein the camera module and multi-articulating instruments can be controlled by a surgeon via the workstation. The reusable multi-articulating, snake-like instruments are designed to couple with sterile detachable single patient use robotic end effectors that would provide first use quality in every case and eliminate the reprocessing of the complete instrument. The use of reusable (for a specific number of uses) robotic instruments and single patient use end effectors is intended to minimize the cost per procedure. The patient cart is also designed to include a mast, a boom and wheels for optimal configurability for a variety of surgical indications and the ability to be maneuvered within the operating room, or redeployed within hospitals and surgical centers, where applicable.

As part of the development of the SPORT Surgical System, the Company plans to develop a robust training curriculum and post-training assessment tools for surgeons and surgical teams. The proposed training curriculum will likely include cognitive pre-training, psychomotor skills training, surgery simulations, live animal and human cadaver lab training, surgical team training, troubleshooting and an overview of safety. Post-training assessment will include validation of the effectiveness of those assessment tools.

The Company continuously evaluates its technologies under development for intellectual property protection through a combination of trade secrets and patent application filings. As of December 31, 2017, the Company had ownership of 20 patents and 48 patent applications. The Company anticipates expanding its patent portfolio by filing patent applications as it progresses in the development of robotic surgical technologies and by licensing suitable technologies. The Company previously entered into exclusive license agreements with several organizations including The Trustees of Columbia University. The license agreement with Columbia University provided the Company with certain rights for the development and commercialization of robotic surgical technology for use in single port surgery. On August 25, 2017, the Company gave notice of its intent to terminate the license agreement with Columbia University.

As part of its development and commercialization efforts, the Company has established certain milestones that it uses to assess its progress towards developing commercially viable robotic surgical technologies. These milestones relate to technology and design advancements as well as to targeted dates for preclinical studies and completion of regulatory submissions. To assess progress, the Company regularly tests and evaluates its technology. If such evaluations indicate technical defects or failure to meet cost or performance goals, the Company's commercialization schedule could be delayed and potential purchasers of its initial commercial systems may decline to purchase them or may choose to purchase alternative technologies.

Among other things, the future success of the Company is substantially dependent on continuing its research and development program, including the ongoing support of any outsourced research and development suppliers.

In addition to being capital intensive, research and development activities relating to the sophisticated technologies that the Company is developing are inherently uncertain as to future success and the achievement of desired results. If delays or problems occur during the Company's ongoing research and development activities, important financial and human resources may need to be diverted toward resolving such delays or problems. Further, there is material risk that the Company's research and development activities may not result in a functional, commercially viable product or one that is approved by regulatory authorities. See "Risk Factors".

The current prototype units incorporate previous design and engineering work completed on the SPORT Surgical System. These units have and will continue to be used for preclinical live animal and human cadaver studies, incorporating the most recent design and engineering modifications. The live animal and human cadaver studies are expected to provide information in support of anticipated regulatory submissions to the United States Food and Drug Administration ("FDA") for marketing clearance, and European regulatory authorities for the CE Mark. Management has initiated communications with the FDA and a European Notified Body (for the CE Mark), to confirm the preclinical studies and possibly, confirmatory human data that may be required to support formal regulatory submittals. Communications are ongoing with the intent of clarifying details of the regulatory pathways during 2018.

In 2017 the Company set milestones early in the year and thereafter proceeded to achieve every one of them on or ahead of schedule. In particular, the Company:

- Finalized user requirements for the first-generation robotic surgical system, removing features that may have impeded progress to commercialization.
- Selected and confirmed strategic Centers of Excellence for preclinical studies in the U.S. and Europe, which included three of the world's top robotic surgical training centers, Florida Hospital Nicholson Centre in Celebration, Florida, Columbia University in New York City and the Institut Hospitalo-Universitaire (IHU) in Strasbourg, France.
- Through its contract development and manufacturing partner, continued to test and evaluate the performance of subsystems of early surgical system prototypes in order to identify potential deficiencies that could impede the deployment of the advanced prototypes into the Centers of Excellence.
- Completed initial formative human factors studies to assist in anticipating the advantages and challenges to the implementation of the Company's design concept in an operating room.
- Implemented design changes on an expedited basis to ensure that advanced prototypes would be fully functional when deployed at the Centers of Excellence.
- Working with a leading simulation provider, completed the initial requirements for an architecture for simulation software, the supporting hardware and the design of a training program.
- Deployed advanced prototypes at the three Centers of Excellence, allowing to date, twelve experienced robotic surgeons from three countries to successfully
  perform twenty-one live animal studies and two human cadaver studies.
- The Company received notices of issuance of additional US and European patents.
- Communicated with the U.S. Food and Drug Administration (FDA), filling a Q-submission and receiving a response, which initiates a current and formal dialog on a regulatory pathway for the Company's robotic surgical system in the U.S.; and concurrently, met with the British Standards Institution (BSI) Group, a qualified European Notified Body regarding the process for securing the CE Mark for the Company's surgical system in Europe.

## **Discussion of Operations**

The Company incurred a net and comprehensive loss of \$33,586,984 during the year ended December 31, 2017, compared with a net and comprehensive loss of \$23,323,496 for the year ended December 31, 2016. This increase in net and comprehensive loss for the year is primarily attributed to the reduced research and development activities in 2017, offset by the substantial increase in the fair value of warrant liabilities in 2017 compared to 2016. In addition, foreign exchange loss for the year ended December 31, 2017 was \$542,664 compared to \$277,303 for the year ended December 31, 2016.

During the year ended December 31, 2017, corporate efforts were ongoing related to furthering strategic product development and manufacturing relationships, carrying on efforts to secure the Company's intellectual property through the patent and licensing process, and continuing the development of the Company's robotic surgical system.

Research and development expenditures (all of which were expensed in the period) for the year ended December 31, 2017 and December 31, 2016, respectively, were as follows:

| Research and Development          |     | Year Ended      | Year Ended December |            |  |
|-----------------------------------|-----|-----------------|---------------------|------------|--|
| Expenditures                      | Dee | cember 31, 2017 | 31, 2016            |            |  |
| Intellectual property development | \$  | 25,704          | \$                  | 20,000     |  |
| License and royalties             |     | 43,575          |                     | 82,531     |  |
| Product development               |     | 12,831,576      |                     | 22,475,354 |  |
| Total                             | \$  | 12,900,855      | \$                  | 22,577,885 |  |

Research and development expenditures decreased in the year ended December 31, 2017 compared to the same period in 2016. This decrease was primarily due to a reduction in available funding in 2017 compared to 2016.

Excluding foreign exchange, general and administrative expenses for the year ended December 31, 2017, were \$5,983,201 compared to \$4,949,905 for the comparable period in 2016. This increase in 2017 over 2016 is attributed primarily to an increase in stock-based compensation and management and administrative salaries.

The loss attributed to the change in fair value of warrants for the year ended December 31, 2017 was \$13,133,671 compared to a gain of \$4,950,013 for the same period in 2016. The change in loss of \$18,083,684, reflects a more significant increase in the fair value of warrants in 2017 compared to 2016 and the loss on extinguishment of \$709,782 regarding the conversion of the Longtai deposit to common shares in Q3 2017.

The company realized \$17,442 of interest income in the year ended December 31, 2017 and \$7,540 in the year ended December 31, 2016. This increase is primarily attributed to the substantial increase in cash in the 4th quarter of 2017 from the exercise of warrants and the offering of units completed in the fourth quarter of 2017.

For a discussion regarding the status of the development of the SPORT Surgical System, please see "Development Objectives" below.

# Summary of Quarterly Results

The following is selected financial data for each of the eight most recently completed quarters, derived from the Company's financial statements, calculated in accordance with IFRS.

|                                                     | E<br>D | hree Months<br>nded<br>December 31<br>017 | E<br>S | Three Months<br>Ended<br>September 30<br>8017 | E  | Three Months<br>Ended<br>une 30, 2017 | E  | Three Months<br>Ended<br>Aarch 31,<br>016 | Three Months<br>Ended<br>December 31<br>2016 | E  | Three Months<br>Ended<br>September 30<br>016 | F  | Three Months<br>Ended<br>Tune 30, 2016 | E  | hree Months<br>nded<br>Iarch 31 2016 |
|-----------------------------------------------------|--------|-------------------------------------------|--------|-----------------------------------------------|----|---------------------------------------|----|-------------------------------------------|----------------------------------------------|----|----------------------------------------------|----|----------------------------------------|----|--------------------------------------|
| Net sales                                           |        | -                                         |        | -                                             |    | -                                     |    | -                                         | -                                            |    | -                                            |    | -                                      |    | -                                    |
| Net and<br>Comprehensive<br>Loss from<br>operations | \$     | 12,829,980                                | \$     | 13,902,817                                    | \$ | 1,865,913                             | \$ | 4,988,274                                 | \$<br>2,008,365                              | \$ | 1,659,863                                    | \$ | 7,934,874                              | \$ | 11,720,394                           |
| Basic and<br>diluted loss per<br>share              | \$     | 0.04                                      | \$     | 0.06                                          | \$ | 0.01                                  | \$ | 0.03                                      | \$<br>0.01                                   | \$ | 0.01                                         | \$ | 0.05                                   | \$ | 0.09                                 |

Changes in key financial data from the three months ended March 31, 2016 to the three months ended December 31, 2017 reflect the ongoing development of the SPORT Surgical System. Also included is the requirement to revalue the Company's warrant liability at fair value, with subsequent changes recorded through net and comprehensive loss for the period.

# Liquidity and Capital Resources

The Company currently does not generate any revenue or income (other than interest income on its cash balances) and accordingly, it is (and it will be for the foreseeable future) dependent primarily upon equity financing for any additional funding required for development and operating expenses.

The ability of the Company to arrange such financing in the future will depend in part upon prevailing capital market conditions and the business success of the Company. There can be no assurance that the Company will be successful in its efforts to arrange additional financing on terms satisfactory to the Company. If additional financing is raised by the issuance of shares or convertible securities from treasury, control of the Company may change and shareholders may suffer additional dilution. If adequate funds are not available, or are not available on acceptable terms, the Company may not be able to take advantage of opportunities, or otherwise to continue its technology development program at its current pace.

The Company had \$26,130,493 of cash and cash equivalents on hand and accounts payable and accrued liabilities of \$2,218,352 excluding warrant liability, at December 31, 2017, compared to \$4,339,911 and \$4,232,201 respectively, at December 31, 2016. The Company's working capital as at December 31, 2017 was \$26,675,319 excluding warrant liability, compared to \$2,366,832, at December 31, 2016.

Below is a table that sets out the various series of Titan warrants that were previously issued, using historic rates. The disclosure of the potential proceeds in the last column of the table below assumes all warrants are exercised on or before the expiry date. However, there is no assurance that any warrants will be exercised prior to their expiry.

|            | Issue Date         | Expiry Date        | Number Issued | Number<br>Outstanding | Exercise<br>Price<br>(CDN \$) | Potential<br>Proceeds<br>(CDN \$) |
|------------|--------------------|--------------------|---------------|-----------------------|-------------------------------|-----------------------------------|
| TMD.WT.C   | March 13, 2013     | March 13, 2018     | 6,260,763     | 5,260,705             | \$1.25                        | 6,575,881                         |
| TMD.WT. F  | November 16, 2015  | November 16, 2020  | 7,012,195     | 7,012,195             | \$1.60                        | 11,219,512                        |
| TMD.WT. G  | February 12, 2016  | February 12, 2021  | 11,670,818    | 11,600,818            | \$1.00                        | 11,600,818                        |
| TMD.WT. G  | February 23, 2016  | February 12, 2021  | 1,746,789     | 1,746,789             | \$1.00                        | 1,746,789                         |
| TMD.WT.H   | March 31, 2016     | March 31, 2021     | 15,054,940    | 15,054,940            | \$1.20                        | 18,065,928                        |
| TMD.WT.H   | April 14, 2016     | March 31, 2021     | 2,258,241     | 2,258,241             | \$1.20                        | 2,709,889                         |
| TMD.WT. I  | September 20, 2016 | September 20, 2021 | 17,083,333    | 17,083,333            | \$0.75                        | 12,812,500                        |
| TMD.WT. I  | October 27, 2016   | September 20, 2021 | 2,030,000     | 2,030,000             | \$0.75                        | 1,522,500                         |
| NOT LISTED | March 16, 2017     | March 16, 2019     | 10,733,600    | 4,074,708             | \$0.40                        | 1,629,883                         |
| NOT LISTED | March 16, 2017     | March 16, 2021     | 10,733,600    | 10,657,600            | \$0.50                        | 5,328,800                         |
| NOT LISTED | June 29, 2017      | June 29, 2022      | 48,388,637    | 2,319,305             | \$0.20                        | 463,861                           |
| NOT LISTED | July 21, 2017      | June 29, 2022      | 11,117,000    | 11,117,000            | \$0.20                        | 2,223,400                         |
| NOT LISTED | August 24, 2017    | August 24, 2022    | 16,892,000    | 16,892,000            | \$0.20                        | 3,378,400                         |
| NOT LISTED | December 5,2017    | December 5, 2022   | 46,000,000    | 46,000,000            | \$0.60                        | 27,600,000                        |
| TOTAL      |                    |                    | 206,981,916   | 153,107,634           |                               | 106,878,161                       |

# **Development Objectives**

The Company uses a combination of internal resources and external development firms to execute the research, development and commercialization plan for the Company's robotic surgical system.

The results achieved by surgeons in operating prototypes in animal and cadaver studies during 2017 validated the potential for single incision surgeries to be performed with the SPORT Surgical System. However, the studies also confirmed that improvements to the system would be necessary before proceeding toward regulatory clearance and commercialization. The planning for engineering activities has already commenced, but the execution of those activities will increase the cost of product development and extend the timeline to commercialization. The Company anticipates that 2018 will be a year of intense product development in preparation for manufacturing, including hardware and software at all levels, involving the workstation, patient cart, camera and light source, instruments, and disposable components that facilitate successful surgery. This work must be completed before design freeze and proceeding with summative evaluation usability tests with the final product and validation studies required for regulatory filings. Based on the scope of product development ahead, the Company expects these tests and studies to take place in 2019, with the system in its final configuration and with training programs in place for new surgeon users.

The amounts and timing of the Company's actual expenditures will depend upon numerous factors, including the status of its development and commercialization efforts and the amount of capital raised through equity financings and warrant and option exercises.

A complete estimate of the timing and costs for development milestones beyond 2018 are speculative. The Company does however estimate that a minimum of an additional US \$50 million will be required beyond 2018 in order to submit its 510(k) application to the FDA, apply for the CE Mark, and if successful with those efforts, proceed with early commercialization activities. Given the uncertainty of, among other things regulatory processes, product development timelines, regulatory requirements, (such as live animal and human cadaver studies), and possibly human confirmatory studies, actual costs and development times may exceed management's current expectations and an accurate estimate of the future costs of the regulatory phases and development milestones beyond 2018 is not possible at this time.

# Current Development Plan

The Company anticipates development costs through to the end of 2018 to be as set out in the table below.

| Development Milestones                                                                                                                                                                                                                                     | Estimated Cost<br>(in U.S. million \$) | Schedule for<br>Milestone Completion | Comments |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|--------------------------------------|----------|
| Based on preclinical study results, plan software development and product upgrades including improvements to workstation, patient cart, instruments, camera, light source and disposable components                                                        | 9.0 (2)                                | Q1 2018                              |          |
| Demonstrate first two modules of simulation software                                                                                                                                                                                                       |                                        |                                      |          |
| Prototype, test and procure surgeon feedback on revised workstation controls                                                                                                                                                                               | 10.6(3)                                | Q2 2018                              |          |
| Complete software and hardware change requirements and finalize computer and software architecture for production systems                                                                                                                                  |                                        |                                      |          |
| Complete revisions to instrument and lens wash system and demonstrate performance                                                                                                                                                                          |                                        |                                      |          |
| Complete Camera Insertion Tube (CIT)<br>engineering confidence build based on<br>improved design                                                                                                                                                           | 10.8 (4)                               | Q3 2018                              |          |
| Complete design of SPORT surgeon workstation and patient cart for engineering confidence build                                                                                                                                                             |                                        |                                      |          |
| Complete and demonstrate full suite of simulation software for beta test                                                                                                                                                                                   |                                        |                                      |          |
| Complete SPORT capital equipment engineering confidence build based on improved design                                                                                                                                                                     | 10.6 (5)                               | Q4 2018                              |          |
| Document results of confidence build unit testing, implement design improvements and schedule preliminary audit of quality system by European Notified Body                                                                                                | TBD(1)                                 | H1 2019                              |          |
| Submit draft protocols to FDA in Q- submission(s) for comment                                                                                                                                                                                              | TBD(1)                                 | H2 2019                              |          |
| Initiate SPORT Surgical System Design Freeze                                                                                                                                                                                                               |                                        |                                      |          |
| Verify production system operation with clinical experts under rigorous formal (summative) human factors evaluation under simulated robotic manipulation exercises and through exercises of the completed surgeon simulation software and training program |                                        |                                      |          |
| Complete and document preclinical live animal (swine) and cadaver surgery studies according to final protocols for FDA submittal                                                                                                                           |                                        |                                      |          |
| Obtain 13485 Certification                                                                                                                                                                                                                                 |                                        |                                      |          |
| Submit technical file to European Notified Body for review for CE Mark                                                                                                                                                                                     |                                        |                                      |          |
| Submit 510(k) application to FDA                                                                                                                                                                                                                           |                                        |                                      |          |
| TOTAL                                                                                                                                                                                                                                                      | TBD(1)                                 |                                      |          |

9

#### Notes:

- (1) A specific cost for individual milestone completion cannot be estimated at this time.
- (2) Includes research and development costs estimated at approximately US \$7.3 million, and general and administrative costs estimated at approximately US \$1.7 million.
- (3) Includes research and development costs estimated at approximately US \$8.5 million, and general and administrative costs estimated at approximately US \$2.1 million.
- (4) Includes research and development costs estimated at approximately US \$8.6 million, and general and administrative costs estimated at approximately US \$2.2 million.
- (5) Includes research and development costs estimated at approximately US \$8.4 million, and general and administrative costs estimated at approximately US \$2.2 million.

Upon completion of the development of the SPORT Surgical System and following receipt of all applicable regulatory clearances in the United States and Europe, the Company intends to utilize a direct sales force and/or distribution partner(s) to initiate marketing of the SPORT Surgical System to hospitals.

Due to the nature of technology research and development, there is no assurance that these objectives will be achieved, and there can be no assurance with respect to the time or resources that may be required. The Company expects that additional specific milestones could be identified as the development of its SPORT Surgical System progresses, or existing milestones, budgets and the schedule for completion of each milestone may change depending on many factors including the results of the Company's development program, clarification of or changes to regulatory requirements, the availability of financing and the ability of development firms engaged by the Company to complete work assigned to them. The total costs to complete the development of the Company's SPORT Surgical System as referenced above are only an estimate based on current information available to the Company and cannot yet be determined with a high degree of certainty, and the cost may be substantially higher than estimated. Please see "Forward-looking Statements" and "Risk Factors".

Please also refer to the risk factors set forth starting on page 16 of the Company's Annual Information Form for the 2017 fiscal year, available on SEDAR at www.sedar.com.

# Financings

During 2017, 52,654,224 warrants issued in previous offerings were exercised for total proceeds of \$9,438,577. The fair market value of the exercised warrants had a value of \$7,953,581 which was reclassified from warrant liability to common stock.

# Offerings During Q4 2017

On December 5, 2017 Titan completed an offering of units (the "December Offering") made pursuant to an agency agreement dated November 30, 2017 between the Company and Bloom Burton Securities Inc. ("Bloom Burton"). The Company sold 46,000,000 units under the December Offering at a price of CDN \$0.50 per unit for gross proceeds of approximately \$18,137,800 (\$16,517,424 net of closing costs including cash commission of \$1,246,185 paid in accordance with the terms of the agency agreement). Each unit consisted of one Common Share and one Common Share purchase warrant, each warrant entitling the holder thereof to acquire one additional Common Share at an exercise price of CDN \$0.60 and expiring December 5, 2022. The warrants were valued at \$5,223,686 based on the value determined by using the Black-Scholes model and the balance of \$12,914,114 was allocated to common shares.

On October 20, 2017 and October 30, 2017, the Company completed a non-brokered private placement offering of 13,385,900 Common Shares, for aggregate gross proceeds of US \$2,677,326 (CDN\$3,343,416), to subscribers in Canada, the United States and Europe.

# Offerings During Q2 2017

On June 29, 2017, the Company completed an offering of securities (the "June Offering") pursuant to an agency agreement (the "June Agency Agreement") dated June 26, 2017 between the Company and Bloom Burton. At the first closing of the June Offering on June 29, 2017, the Company sold 48,388,637 units at a price of CDN \$0.15 per unit for gross proceeds of approximately \$5,576,357 (\$4,838,002 net of closing costs including cash commission of \$382,689 paid in accordance with the terms of the June Agency Agreement). Each unit consisted of one common share of the Company and one common share purchase warrant, each warrant entitles the holder thereof to acquire one common share of the Company at an exercise price of CDN \$0.20 and expires June 29, 2022. The warrants were valued at \$2,788,274 based on the value determined by the Black-Scholes model and the balance of \$2,788,083 was allocated to common shares. In addition to the cash commission paid to Bloom Burton and selling group members, broker warrants were issued to Bloom Burton and selling group members, which entitle the holder to purchase 3,285,986 common shares at a price of CDN \$0.15 per share prior to expiry on June 29, 2019.

On July 21, 2017 Titan completed the second closing of the June Offering pursuant to which the Company sold an additional 11,117,000 units at a price of CDN \$0.15 per unit for gross proceeds of approximately \$1,328,871 (\$1,200,788 net of closing costs including cash commission of \$93,021 paid in accordance with the terms of the June Agency Agreement). Each unit consisted of one common share of the Company and one common share purchase warrant, each warrant entitles the holder thereof to acquire one common share of the Company at an exercise price of CDN \$0.20 and expiring June 29, 2022. The warrants were valued at \$575,844 based on the value determined by using the Black-Scholes model and the balance of \$753,027 was allocated to common shares. Pursuant to the agency agreement, in addition to the cash commission paid to Bloom Burton and the selling group members, broker warrants were issued to Bloom Burton and the selling group members, which entitle the holder to purchase 778,190 common shares at a price of CDN \$0.15 per share prior to expiry on June 29, 2019.

# Offerings During Q1 2017

On March 16, 2017, Titan completed an offering (the "March Offering") of securities made pursuant to an agency agreement dated March 10, 2017 (the "March Agency Agreement") between the Company and Bloom Burton. The Company sold 21,467,200 units under the Offering at a price of CDN\$0.35 per unit for gross proceeds of approximately \$5,642,537 (\$5,039,817 net of closing cost including cash commission of \$394,316 paid in accordance with the terms of the March Agency Agreement). Each unit consisted of one common share of the Company and (i) one-half of one common share purchase warrant, each whole warrant entitling the holder thereof to acquire one common share of the Company at an exercise price of CDN \$0.40 and expiring March 16, 2019, and (ii) one-half of one common share purchase warrant, each whole warrant entitling the holder thereof to acquire one common share of the Company at an exercise price of CDN \$0.50 and expiring March 16, 2021. The warrants were valued at \$1,297,810 based on the value determined by using the Black-Scholes model and the balance of \$4,344,727 was allocated to common shares.

Pursuant to the March Agency Agreement, in addition to the cash commission paid to Bloom Burton, broker warrants were issued to Bloom Burton which entitle the holder to purchase 1,500,155 common shares at a price of CDN \$0.35 per share prior to expiry on March 16, 2019.

# Private Placements - Longtai Medical Inc.

On November 23, 2015 Titan closed a private placement of 4,290,280 Common Shares to Longtai Medical Inc. at a subscription price of CDN \$1.23 per common share for gross proceeds of \$4,000,000. Under the Agreement, Titan granted to Longtai exclusive rights to negotiate an exclusive marketing, sales and distribution agreement for Titan's SPORT Surgical System in the Asia Pacific region. Longtai paid to Titan \$2,000,000 as a deposit toward the Distributorship Agreement.

As the parties were not able to reach consensus as to the Distributorship Agreement by the agreed upon date, the deposit became due for repayment to Longtai. On August 24, 2017, Titan completed a subscription agreement with Longtai for the equity conversion of Longtai's \$2.0 million deposit. Under the terms of the subscription agreement dated July 31, 2017, Titan issued to Longtai 16,892,000 Units at an assigned issue price of CDN \$0.15 per Unit. Each Unit consists of one Common Share and one warrant exercisable for one Common Share at an exercise price of CDN \$0.20 prior to expiry on August 24, 2022. The warrants were valued at \$822,372 based on the value determined by the Black-Scholes model. The Common Shares were valued at \$1,887,411 based on the market value on August 24, 2017 of CDN \$0.14. The warrant and the Common Shares were valued at fair value in accordance with International Financial Reporting Interpretations Committee Interpretation #19-Extinguishing Financial Liabilities ("IFRIC 19"). A loss of \$709,782 was incurred on extinguishment which is included in the Gain (Loss) on change in value of warrant liability in the statement of net and comprehensive loss.

The utilization of proceeds as outlined in the short form prospectus dated March 10, 2017, June 26, 2017 and November 30, 2017 has been updated as outlined in the following table:

|                                                                        | Offer<br>in the<br>Prosp | eds from the<br>ing as outlined<br>Short Form<br>ectus dated<br>h 10, 2017 | Offer<br>in the<br>Prosp | eeds from the<br>ring as outlined<br>e Short Form<br>bectus dated<br>26, 2017 | Of<br>in<br>Pro | occeeds from the<br>fering as outlined<br>the Short Form<br>ospectus dated<br>ovember 30, 2017 | <br>Total        |
|------------------------------------------------------------------------|--------------------------|----------------------------------------------------------------------------|--------------------------|-------------------------------------------------------------------------------|-----------------|------------------------------------------------------------------------------------------------|------------------|
| Ongoing development and commercialization of the Sport Surgical System | \$                       | 4,031,854                                                                  | \$                       | 4,831,032                                                                     | \$              | 13,213,939                                                                                     | \$<br>22,076,825 |
| General working capital requirements                                   |                          | 1,007,963                                                                  |                          | 1,207,758                                                                     |                 | 3,303,485                                                                                      | \$<br>5,519,206  |
| Total Net Proceeds                                                     | \$                       | 5,039,817                                                                  | \$                       | 6,038,790                                                                     | \$              | 16,517,424                                                                                     | \$<br>27,596,031 |

# **Off-Balance Sheet Arrangements**

Other than for leased premises occupied by the Company, the Company does not utilize off balance sheet arrangements.

### **Outstanding Share Data**

The following table summarizes the outstanding share capital as of the date of this MD&A:

| Type of Securities             | Number of common shares issued or issuable<br>upon conversion |
|--------------------------------|---------------------------------------------------------------|
| Common shares                  | 380,826,684                                                   |
| Stock options <sup>(1)</sup>   | 25,966,721                                                    |
| Warrants                       | 153,107,634                                                   |
| Broker warrants <sup>(2)</sup> | 8,179,152                                                     |

Notes:

- (1) The Company has outstanding options enabling certain employees, directors, officers and consultants to purchase common shares. Please refer to note 4(b) of the Unaudited Condensed Interim Financial Statements for terms of such options.
- (2) Pursuant to the agency agreement in respect of the February 2016 offering, in addition to the cash commission paid to the agent for the offering, 916,443 broker warrants were issued to the agent. Each broker warrant entitles the holder thereof to acquire one un it of the Company at the price of CDN\$0.90 for a period of 24 months following the closing date. Each unit consists of one common share and one warrant. Each warrant entitles the holder to acquire one common share at an exercise price of CDN\$1.00 for a period of 60 months from the date of closing.

Pursuant to the agency agreement in respect of the March 2016 offering, in addition to the cash commission paid to Bloom Burton, 1,190,921 broker warrants were issued to the agent. Each broker warrant entitles the holder thereof to acquire one unit of the Company at the price of CDN \$1.00 for a period of 24 months following the closing date. Each unit consists of one common share and one warrant. Each warrant entitles the holder to acquire one common share at an exercise price of CDN \$1.20 per share for a period of 60 months from the date of closing.

Pursuant to the agency agreement in respect of the September 2016 offering, in addition to the cash commission paid to the agents, 1,307,594 broker warrants were issued to the agents. Each broker warrant entitles the holder thereof to acquire one common share of the Company at the price of CDN \$0.60 for a period of 24 months following the closing date.

Pursuant to the agency agreement in respect of the March 2017 offering, in addition to the cash commission paid to the agents, 1,500,155 broker warrants were issued to the agents. Each broker warrant entitles the holder thereof to acquire one common share of the Company at the price of CDN \$0.35 for a period of 24 months following the closing date.

Pursuant to the agency agreement in respect of the June 2017 offering, in addition to the cash commission paid to the agents, 4,064,176 broker warrants were issued to the agents. Each broker warrant entitles the holder thereof to acquire one common share of the Company at the price of CDN \$0.15 for a period of 24 months following the closing date.

Pursuant to the agency agreement dated November 30, 2017 in respect of the December 2017 offering, in addition to the cash commission paid to the agents, 3,160,500 broker warrants were issued to the agents. Each broker warrant entitles the holder thereof to acquire one common share of the Company at the price of CDN \$0.50 for a period of 24 months following the closing date.

A total of 12,139,789 broker warrants were issued in connection with the February 2016, March 2016, September 2016, March 2017, June 2017, July 2017 and December 2017offerings. As of the date hereof, 8,179,152 broker warrants remain outstanding.

# **Accounting Policies**

The accounting policies set out in the notes to the audited financial statements have been applied in preparing the audited financial statements for the year ended December 31, 2017 and the comparative information presented in the audited financial statements for the year ended December 31, 2016.

The preparation of financial statements in conformity with IFRS requires management to make estimates and assumptions that affect the reported amount of assets and liabilities and disclosure of provisions at the date of the financial statements and the reported amount of expenses during the year. Financial statement items subject to significant judgement include, (a) the measurement of stock-based compensation and (b) the fair value estimate of the initial measurement of new warrant liabilities and the remeasurement of unlisted warrant liabilities. While management believes that the estimates and assumptions are reasonable, actual results may differ.

the fair value estimate of the initial measurement of new warrant liabilities. While management believes that the estimates and assumptions are reasonable, actual results may differ.

# (a) Stock Options

The Black-Scholes model used by the Company to determine fair values of stock options and warrants was developed for use in estimating the fair value of the stock options and warrants. This model requires the input of highly subjective assumptions including future stock price volatility and expected time until exercise. Changes in the subjective input assumptions can materially affect the fair value estimate.

## (b) Warrant Liability

In accordance with IAS 32, because the exercise prices of new warrants are not fixed, they are denominated in a currency (Canadian dollar) other than the Company's functional currency (U.S. dollar). Accordingly, the warrants are accounted for as a derivative financial liability. The warrant liability is initially measured at fair value and subsequent changes in fair value are recorded through Net and Comprehensive Loss for the period. The accounting guidance for fair value measurements prioritizes the inputs used in measuring fair value into the following hierarchy:

Level 1 - Quoted prices (unadjusted) in active markets for identical assets or liabilities;

Level 2 – Inputs other than quoted prices included within Level 1 that are directly or indirectly observable:

Level 3 – Unobservable inputs in which little or no market activity exists, therefore requiring an entity to develop its own assumptions about the assumptions that market participants would use in pricing.

The fair value of our Warrant liability is initially based on Level 2 (significant observable inputs) and at December 31, 2017 is based on Level 1, quoted prices (unadjusted) in an active market, for our listed warrants and level 2 for our unlisted warrants.

# **Related Party Transactions**

During the year ended December 31, 2017, transactions between the Company and directors, officers and other related parties were related to compensation matters in the normal course of operations and are measured at the exchange amount, which is the amount of consideration established and agreed to by the related parties.

## Financial Instruments

The Company's financial instruments consist of cash and cash equivalents, amounts receivable, accounts payable and accrued liabilities and other liabilities and charges. The fair value of these financial instruments approximates their carrying values, unless otherwise noted, due to the short-term maturities of these instruments or the discount rate applied. Warrant liabilities are valued at fair value as described in the accounting policies note (b).

### Outlook

During the third and fourth quarters of 2017, experienced robotic surgeons performed the first single-port procedures at three Centers of Excellence in the US and Europe using the SPORT Surgical System. These studies validated prototype performance in preclinical settings. During the studies, essential areas for improvement of the surgical system were identified. These include enhancements to the camera and light source, hand controls, instruments, the mechanisms of the patient cart and software throughout the system to ensure safe and reliable system operation. The final design is intended to address performance and usability requirements of prospective surgeon customers, as well as the needs of operating room support personnel and hospital administrators.

In 2018, management intends to focus on product development for manufacturing, including hardware and software at all levels, involving the workstation, patient cart, instruments, camera and light source, and disposable components that facilitate successful surgery.

As improvements are made to the system, advanced prototypes will be upgraded and deployed at the Centers of Excellence and for further preclinical evaluation in live animal and cadaver studies to ensure that the improvements are effective. This work must be completed before freezing the design and proceeding with summative evaluation usability tests with the final product, and validation studies required for regulatory filings. Based on the scope of product development ahead, those tests and studies are expected to take place in 2019.

Over the next twelve months, the Company plans to raise additional capital to finance the development and commercialization of the SPORT Surgical System. Management will continue to assess the reasonableness of development milestones, as well as timelines and related cost estimates, as financing is secured.

The Company's immediate plans also include identifying and engaging technical experts and subcontractors with experience in key technical areas to provide an accelerated pathway to subsystems development with current technology. Further, the Company plans to continue to protect its intellectual property by securing additional patents. The pace at which the Company can carry out these activities will be substantially dependent on its ability to raise the necessary capital on a timely basis.

# Additional Information

Additional information relating to the Company, including Titan's Annual Information Form for the 2016 fiscal year, is available on SEDAR atwww.sedar.com.

# TITAN MEDICAL INC.

# ANNUAL INFORMATION FORM

For the fiscal year ended December 31, 2017

March 31, 2018

# TITAN MEDICAL INC. ANNUAL INFORMATION FORM

# TABLE OF CONTENTS

|                                                                                 | Page                                                                                                                                                                                                            |
|---------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CORPORATE STRUCTURE                                                             | 1                                                                                                                                                                                                               |
| CAUTION REGARDING FORWARD-LOOKING STATEMENTS                                    | 1                                                                                                                                                                                                               |
| DEVELOPMENT OF THE BUSINESS                                                     | <u>4</u>                                                                                                                                                                                                        |
| DESCRIPTION OF THE BUSINESS                                                     | <u>7</u>                                                                                                                                                                                                        |
| Product Development                                                             | $ \begin{array}{c} 1\\ 4\\ 7\\ 7\\ 8\\ 11\\ 12\\ 13\\ 13\\ 14\\ 14\\ 16\\ 16\\ 16\\ 14\\ 16\\ 16\\ 12\\ 13\\ 14\\ 16\\ 16\\ 16\\ 16\\ 16\\ 12\\ 12\\ 13\\ 14\\ 16\\ 16\\ 16\\ 16\\ 16\\ 16\\ 16\\ 16\\ 16\\ 16$ |
| Development Objectives                                                          | <u>8</u>                                                                                                                                                                                                        |
| Market Opportunity                                                              | <u>11</u>                                                                                                                                                                                                       |
| Regulation                                                                      | <u>12</u>                                                                                                                                                                                                       |
| Specialized Skill and Knowledge                                                 | <u>13</u>                                                                                                                                                                                                       |
| Intellectual Property Protection                                                | <u>13</u>                                                                                                                                                                                                       |
| Employees                                                                       | <u>14</u>                                                                                                                                                                                                       |
| Surgeon Advisory Board                                                          | <u>14</u>                                                                                                                                                                                                       |
| RISK FACTORS                                                                    |                                                                                                                                                                                                                 |
| The Business of the Company – General                                           | $ \begin{array}{r}     16 \\     16 \\     17 \\     17 \\     18 \\     18 \\     19 \\     20 \\     20 \\     20 \\     20 \\     21 \\     21 \\   \end{array} $                                            |
| Additional Financing and Going Concern                                          | <u>16</u>                                                                                                                                                                                                       |
| Strategic Alliances                                                             | <u>17</u>                                                                                                                                                                                                       |
| Dependence on Key Personnel                                                     | <u>17</u>                                                                                                                                                                                                       |
| Competition                                                                     | <u>18</u>                                                                                                                                                                                                       |
| Infringement of Intellectual Property Rights                                    | <u>18</u>                                                                                                                                                                                                       |
| Intellectual Property                                                           | <u>19</u>                                                                                                                                                                                                       |
| Current Global Financial Conditions                                             | <u>20</u>                                                                                                                                                                                                       |
| Conflicts of Interest                                                           | <u>20</u>                                                                                                                                                                                                       |
| Results of Operations                                                           | <u>20</u>                                                                                                                                                                                                       |
| Rapidly Changing Markets Make it Difficult to Forecast Future Operating Results | <u>21</u>                                                                                                                                                                                                       |
| Uncertain Market/Uncertain Acceptance of the Company's Technology/Target Market |                                                                                                                                                                                                                 |
| Technological Advancements                                                      | <u>21</u>                                                                                                                                                                                                       |
| Insurance and Uninsured Risks                                                   | 21<br>21<br>21<br>21<br>21<br>22<br>22<br>22                                                                                                                                                                    |
| Ability to License Other Intellectual Property Rights                           | <u>21</u>                                                                                                                                                                                                       |
| Government Regulation                                                           | <u>21</u>                                                                                                                                                                                                       |
| Profitability                                                                   | <u>22</u>                                                                                                                                                                                                       |
| Changes in Government Policy                                                    | <u>22</u>                                                                                                                                                                                                       |
| Changes in Accounting and Tax Rules                                             | <u>22</u><br>22                                                                                                                                                                                                 |
| Contingent Liabilities                                                          | <u>22</u>                                                                                                                                                                                                       |
|                                                                                 |                                                                                                                                                                                                                 |

- i -

The Business of the Company - Research and Development Operations Uncertainty as to Product Development and Commercialization Milestones Product and Services Not Completely Developed Manufacturing Risks Product Defect Risk Supplier 1 Securities of the Company Stock Price Volatility Future Share Sales Limited Operating History Fluctuating Financial Results Currency Fluctuations DIVIDENDS CAPITAL STRUCTURE MARKET FOR SECURITIES ESCROWED SECURITIES DIRECTORS AND OFFICERS AUDIT COMMITTEE PROMOTER LEGAL PROCEEDINGS AND REGULATORY ACTIONS INTEREST OF MANAGEMENT AND OTHERS IN MATERIAL TRANSACTIONS TRANSFER AGENT AND REGISTRAR MATERIAL CONTRACTS EXPERTS ADDITIONAL INFORMATION

- ii -

# CORPORATE STRUCTURE

# Name, Address and Incorporation

Titan Medical Inc. ("Titan" or the "Company" or "we") is the successor corporation formed pursuant to two separate amalgamations (the "Amalgamations") under the *Business Corporations Act* (Ontario) on July 28, 2008. The head office and registered office of Titan is located at 170 University Avenue, Suite 1000, Toronto, Ontario M5H 3B3. Titan's main telephone number is (416) 548-7522.

The following is a brief description of the Amalgamations.

Synergist Medical Inc. ("Synergist"), Titan Medical Inc. (formerly, 2174656 Ontario Limited) ("Newco") and KAM Capital Corp. ("KAM") entered into an amalgamation agreement on June 23, 2008, pursuant to which on July 28, 2008 Synergist amalgamated with Newco, a wholly-owned subsidiary of KAM, to form a new corporation called Titan Medical Inc. ("Amalco"). Thereafter, Amalco amalgamated with KAM pursuant to a vertical amalgamation to form a new corporation called Titan Medical Inc.

Synergist was incorporated on July 5, 2002 and commenced operations on May 31, 2006 for the purpose of developing robotic surgical technology. KAM was incorporated on November 28, 2007 and filed and obtained a receipt for a final prospectus from certain Canadian securities regulatory authorities in compliance with the TSX Venture Exchange's ("TSX-V") Policy on Capital Pool Companies ("CPC Policy"). Newco was formed as a special purpose wholly-owned subsidiary of KAM incorporated for the purpose of effecting the Amalgamations. The Amalgamations constituted the Qualifying Transaction of KAM under the CPC Policy.

# **Intercorporate Relationships**

Titan does not have any subsidiaries.

# Currency

Effective January 1, 2014, the Company changed its functional and presentation currency from the Canadian dollar to the U.S. dollar, applied on a prospective basis in accordance with IAS 21. This change reflects the continuing increase in the Company's costs being incurred in U.S. dollars, a trend which is expected to continue in the foreseeable future. All currency amounts in this annual information form are in U.S. dollars unless otherwise indicated.

## CAUTION REGARDING FORWARD-LOOKING STATEMENTS

This annual information form and the documents incorporated by reference herein contain "forward-looking information", concerning anticipated developments and events which the Company has a reasonable basis to believe may occur in the future. These forward-looking statements are made as of the date of this annual information form or, in the case of documents incorporated by reference herein, as of the date of such documents. Forward-looking statements are frequently, but not always, identified by words such as "expects", "expectation", "anticipates", "believes", "intends", "estimates", "predicts", "continues", "potential", "targeted", "plans", "possible" and similar expressions (including negative and grammatical variations), or statements that events, conditions or results "will", "may", "could", "would" or "should" occur or be achieved. Any forward-looking statements or statements of "belief", including the statements made under "Risk Factors", represent our estimates only as of the date of this annual information form, and should not be relied upon as representing our estimates as of any subsequent date. These forward-looking statements may concern anticipated developments in the Company's operations in future periods, the adequacy of the Company's financial resources and other events or conditions that may occur in the future, and include, without limitation, statements regarding:

- the Company's technology and research and development objectives, including development milestones, estimated costs, schedules for completion and probability of success;
  - the Company's intention with respect to updating any forward-looking statement after the date on which such statement is made or to reflect the occurrence of unanticipated events;



- the Company's expectation with respect to continuing animal feasibility studies and human cadaver testing, followed by studies for the purpose of gathering animal, human cadaver and confirmatory human data for the purpose of regulatory submissions;
- the Company's expectation that confirmatory human clinical data will be required for regulatory submissions;
- the Company's expectation that sufficient preclinical acute and chronic (survival) animal studies and human cadaver testing may reduce the extent of required confirmatory human clinical data for regulatory submissions;
- the Company's expectation with respect to launching a commercial product in certain jurisdictions; the Company's intentions to develop a robust training curriculum and post-training assessment tools;
- the Company's plans to develop and commercialize the SPORT Surgical System and the estimated incremental costs (including the status, cost and timing of achieving the development milestones disclosed herein);
- the Company's plans to design, create and refine software for production system functionality of the SPORT Surgical System and the estimated incremental costs (including the status, cost and timing of achieving the development milestones disclosed herein);
- the Company's intentions to complete heuristic and formative usability modules and human factors studies, formalize user requirements, stabilize the design and development of the system and initiate preclinical studies;
- the Company's intentions with respect to initiating marketing activities following receipt of the applicable regulatory approvals;
- the surgical indications for, and the benefits of, the SPORT Surgical System;
- the Company's intention to continue to assess specialized skill and knowledge requirements and recruitment of qualified personnel and partners;
- the Company's belief that the materials and parts necessary for the manufacture of a clinical-grade SPORT Surgical System will be available in the marketplace;
- the Company's belief that its early production robotic systems will be appropriate to support the gathering of confirmatory human data;
- the Company's filing and prosecution of patent applications to expand its intellectual property portfolio as technologies are developed or refined;
- the Company's seeking of licensing opportunities to expand its intellectual property portfolio;
- the Company's intended use of proceeds of any offering of its shares;
- the Company's intention with respect to not paying any cash dividends on common shares in the foreseeable future;
- the Company's intention to retain future earnings, if any, to finance expansion and growth;
- projected competitive conditions with respect to the Company's products;
- the estimated size of the market for robotic surgical systems; and
- the potential market for warrants or units.

Forward-looking statements are statements about the future and are inherently uncertain, and actual results of the Company or other future events or conditions may differ materially from those reflected in the forward-looking statements due to a variety of risks, uncertainties and other factors, including those referred to in this annual information form, including but not limited to those described in the section titled, "Risk Factors" herein and therein, in any document incorporated by reference herein or therein, or listed from time to time in our reports, public disclosure documents and other filings with the securities commissions in Canada. These risks include, but are not limited to:

- Additional Financing and Going Concern
- History of Losses
- Strategic Alliances
- Dependence on Key Personnel
- Ability to Attract Qualified Employees to Maintain and Grow Business
- Disclosure of Trade Secrets and Other Proprietary Information
- Dependence on Third Parties
- Competition
- Infringement of Intellectual Property Rights

- 2 -

- Intellectual Property
- Trade-marks
- Current Global Financial Conditions
- Conflicts of Interest
- Results of Operations
- Rapidly Changing Markets Make it Difficult to Forecast Future Operating Results
- Uncertain Market/Uncertain Acceptance of the Company's Technology/Target Market
- Technological Advancements
- Insurance and Uninsured Risks
- Ability to License Other Intellectual Property Rights
- Government Regulation
- Profitability
- Changes in Government Policy
- Changes in Accounting and Tax Rules
- Contingent Liabilities
- Uncertainty as to Product Development and Commercialization Milestones
- Product and Services Not Completely Developed
- Manufacturing Risks
- Reliance on External Suppliers and Development Firms
- Product Defect Risk
- Suppliers
- Stock Price Volatility
- Future Share Sales
- Limited Operating History
- Fluctuating Financial Results
- Effect of Estimates Regarding Milestones
- Currency Fluctuations

Forward-looking statements are based on a number of assumptions which may prove to be incorrect, including but not limited to assumptions about:

- general business and current global economic conditions;
- future success of current research and development activities;
- achieving development and commercial milestones;
- inability to achieve product cost targets;
- competition;
- stability of tax rates and benefits;
- the availability of financing;
- the Company's and competitors' costs of production and operations;
- the Company's ability to attract and retain skilled employees;
- the Company's ongoing relations with its third-party service providers;
- the design of the SPORT Surgical System and related platforms and equipment;
- the progress and timing of the development of the SPORT Surgical System;
- costs related to the development, completion and potential commercialization of the SPORT Surgical System;
- receipt of all applicable regulatory approvals;
- estimates and projections regarding the robotic surgery equipment industry;
- protection of the Company's intellectual property rights;
- market acceptance of the Company's systems under development; and
- the type of specialized skill and knowledge required to develop the SPORT Surgical System and the Company's access to such specialized skill and knowledge.

We caution that the foregoing list of important factors and assumptions is not exhaustive. Although the Company has attempted to identify on a reasonable basis important factors and assumptions related to forward-looking statements, there can be no assurance that forward-looking statements will prove to be accurate, as events or circumstances or other factors could cause actual results to differ materially from those estimated or projected and expressed in, or implied by, these forward-looking statements. Other than as specifically required by law, the Company undertakes no obligation to update any forward-looking statement to reflect events or circumstances after the date on which such statement is made, or to reflect the occurrence of unanticipated events, whether as a result of new information, future events or results or otherwise. Accordingly, readers should not place undue reliance on forward-looking statements.

- 3 -

## **DEVELOPMENT OF THE BUSINESS**

# **Three Year History**

The Company's activities over the last three years have focused on developing its technology and technical capabilities, developing strategic relationships, securing its intellectual property and raising equity capital.

# <u>2017</u>

During 2017 the Company underwent several management changes. In January 2017, David McNally was appointed Chief Executive Officer and a director of the Company. Following the resignation of the Company's President, Dr. Reiza Rayman, Mr. McNally was also appointed as the President of the Company. In February 2017, the Company appointed Perry Genova, PhD. as Vice President of Research and Development. In September 2017, Dr. Genova was appointed to Senior Vice President of Research and Development. Curtis Jensen joined the Company in April 2017 as Vice President of Quality and Regulatory Affairs.

In 2017 the Company set milestones early in the year and thereafter proceeded to achieve every one of them on or ahead of schedule. In particular, the Company:

- Finalized user requirements for the first-generation robotic surgical system, removing features that might impede progress to commercialization.
- Selected and confirmed strategic Centers of Excellence for preclinical studies in the U.S. and Europe, which included three of the world's top robotic surgical training centers; Florida Hospital's Nicholson Center in Celebration, Florida, Columbia University in New York City, and the Institut Hospitalo- Universitaire (IHU) in Strasbourg, France.
- Through its primary contract development and manufacturing partner, continued to test and evaluate the performance of subsystems of early surgical system
  prototypes in order to identify potential deficiencies that could impede the deployment of the advanced prototypes into the Centers of Excellence.
- Completed initial formative human factors studies to assist in anticipating the advantages and challenges to the implementation of the Company's design concept in an operating room.
- Implemented design changes on an expedited basis to ensure that advanced prototypes would be fully functional when deployed at the Centers of Excellence.
- Working with a leading simulation provider, completed the initial requirements for an architecture for simulation software, the supporting hardware and the design of a training program.
- Deployed advanced prototypes at the three Centers of Excellence, allowing to date, twelve experienced robotic surgeons from three continents to perform twenty-one live animal studies and two human cadaver studies.
- Received issuance of additional US and European patents.
- Communicated with the Food and Drug Administration of the United States Department of Health and Human Services (the "FDA"), filling a Q-submission
  and receiving a response, which initiates a current and formal dialog on a regulatory pathway for the Company's robotic surgical system in the U.S.; and
  concurrently, met with the British Standards Institution (BSI) Group, a qualified European Notified Body regarding the process for securing the CE Mark for
  the Company's robotic surgical system in Europe.



The Company's financings in 2017 included:

- In March 2017, the Company completed a prospectus qualified offering of 21,467,200 units for total gross proceeds of U.S.\$5,642,537. Each unit consisted of one common share and (i) one-half of one common share purchase warrant, each whole warrant entitling the holder to acquire one common share of the Company at an exercise price of CDN \$0.40 and expiring March 16, 2019, and (ii) one-half of one common share purchase warrant entitling the holder to acquire one common share of the Company at an exercise price of CDN \$0.40 and expiring March 16, 2019, and (ii) one-half of one common share purchase warrant entitling the holder to acquire one common share of the Company at an exercise price of CDN \$0.50 and expiring March 16, 2021.
- In June 2017, the Company completed a prospectus qualified offering of 48,388,637 units and the issuance and sale of an additional 11,117,000 units in connection with the offering for total gross proceeds of U.S.\$6,905,228. Each unit consisted of one common share and one warrant. Each warrant entitles the holder to purchase one additional common share for CDN\$0.20 and expiring June 29, 2022.
- In October 2017, the Company completed a non-brokered private placement offering of 13,385,900 common shares, led by a group of U.S.-based robotic surgeons for gross proceeds of U.S.\$2,677,326.
- In December 2017, the Company completed a prospectus qualified offering of 46,000,000 units for total gross proceeds of U.S.\$18,137,800. Each unit consisted of one common share and one warrant. Each warrant entitles the holder to purchase one additional common share for CDN\$0.60 and expiring December 5, 2022.

# <u>2016</u>

In the first quarter of 2016, in consultation with its advisors, the Company and its then-current development firm, re-engineered and optimized the 2016 development plan. This was done partially in view of observations related to the experiences of other robotic technology companies in dealing with regulatory authorities and published changes to the FDA guidelines, "Applying Human Factors and Usability Engineering to Medical Devices", issued February 3, 2016, and effective April 3, 2016. The Company reviewed the FDA's new guidelines and incorporated additional procedures and documentation into its human factors and usability studies in an effort to comply with the new guidelines. Consequent to this as well as further engineering development initiatives, the Company determined the total costs for it to reach submission of a 510(k) application to the FDA would increase significantly from the Company's previously published estimate. The Company therefore withdrew all prior milestone charts set forth in the Company's Management's Discussion and Analysis and Annual Information Form in respect of the year ended December 31, 2015 and those set forth in its prospectus supplements respectively dated February 9, 2016 and March 24, 2016.

In the second quarter of 2016, the Company entered into a manufacturing and supply agreement with an established U.S.-based contract manufacturer for the future manufacturing of the SPORT Surgical System. In addition to providing manufacturing expertise, the contract manufacturer participated in the development and design for manufacturing of the SPORT Surgical System, with initial focus on the surgeon workstation.

During the second half of 2016, the work performed by the Company's then-current development firm and contract manufacturer was reduced until such time that the Company received sufficient financing to cover work orders projected over a six-month period. Subsequent to an offering by the Company that closed in October 2016, both firms were re-engaged to resume development of the SPORT Surgical System at a rate consistent with the level of financing raised. This scaled-back rate of program funding was intended as a short-term solution to maintain momentum in critical path human factors studies until accelerated product development could be resumed with adequate funding in 2017.

In August 2016, Dennis Fowler, the Company's former Executive Vice President of Regulatory Affairs resigned. In October 2016, John Hargrove, the Company's former Chief Executive Officer resigned, and the Company initiated an extensive search for a Chief Executive Officer. In addition, the Company initiated a detailed review of its development plan and its then current milestones. With the appointment of the Company's new Chief Executive Officer, David McNally, effective January 3, 2017, the development review was extended and increased in scope which resulted in the Company's decision to revise its interim development milestones. Consequently, the milestones set forth in the prospectus supplement dated September 13, 2016 and its management's discussion and analysis in respect of the three and nine months ended September 30, 2016 were withdrawn and replaced with the new milestones contained in annual information form dated March 31, 2017.



The Company had also forecast that it would complete heuristic studies, which are precursors to the more formal formative usability studies, in 2016. A heuristic study is a "hands-on" or interactive approach to learning, and a process in which technical personnel evaluate the user interface of the device against design principles, rules or "heuristic" guidelines. The object is to evaluate the overall user interface, and identify possible weaknesses in the design, especially when use error could lead to patient or operator harm. Heuristic studies include careful consideration of accepted concepts for design of the user interface. Formative studies involve more in-depth evaluation of the user interface by "subject matter experts", which may include surgeons, nurses, and operating room technicians. The rigorous nature of formative studies with participation by clinical experts typically drives significantly higher associated expenses than heuristic studies. Therefore, it is most efficient to gain insights from heuristic studies before proceeding to formative studies.

Specifically, the Company had forecast the completion of two heuristic usability modules in the second half of 2016. These heuristic usability modules were completed, however the results of the studies yielded opportunities to improve the design of the product. Therefore, after making changes to system prototypes, two additional heuristic modules were completed by the end of 2016, for a total of four heuristic usability modules performed in 2016. The Company completed initial formative usability modules in the first half of 2017.

The Company's financings in 2016 included:

- In February 2016, the Company completed a prospectus qualified offering of 11,670,818 units and the issuance and sale of an additional 1,746,789 units pursuant to the over-allotment option granted to the agent in connection with the offering for total gross proceeds of U.S.\$8,732,038. Each unit consisted of one common share and one warrant. Each warrant entitles the holder to purchase one additional common share for CDN\$1.00 and will expire February 12, 2021.
- In March 2016, the Company completed a prospectus qualified offering of 15,054,940 units for gross proceeds of U.S.\$11,607,359. Each unit consisted of one common share and one warrant. Each warrant entitles the holder to purchase one additional common share for CDN\$1.20 and will expire March 31, 2021. In April 2016, the Company completed the issuance and sale of 2,258,241 additional units pursuant to the over-allotment option granted to the agent in connection with the offering for gross proceeds of U.S.\$1,759,396.
- In September 2016, the Company completed a prospectus qualified offering of 17,083,333 units for gross proceeds of U.S.\$7,749,000. Each unit issued consisted of one common share and one warrant. Each warrant entitles the holder to purchase one additional common share for CDN\$0.75 and will expire September 20, 2021. In October 2016, the Company completed the issuance and sale of 2,030,000 additional units pursuant to the over-allotment granted to the agent in connection with the offering for gross proceeds of U.S.\$909,846.

# <u>2015</u>

After completing the design and test of a feasibility prototype of the SPORT Surgical System in the first quarter of 2015, the Company completed the build of two engineering verification units in the fourth quarter of 2015.

In the first half 2015, the Company entered into an agreement with the James and Sylvia Earl, Simulation to Advance Innovation and Learning (SAIL) Center at Anne Arundel Medical Center (AAMC) in Annapolis, MD, for the development of the training curriculum and post-training assessment of surgeons and surgical teams who would use the SPORT Surgical System. The agreement however was suspended in 2017 by mutual consent with a view to the Company's principal objective to focus its resources on advancing the development of the SPORT Surgical System.

# - 6 -

Also during the first half of 2015, the Company entered into an option agreement with Platform Imaging, LLC whereby Platform Imaging granted the Company an option to negotiate a license agreement to have exclusive rights to practice the inventions set forth in certain patents for markerless tracking of robotic surgical tools for incorporation in the Company's SPORT Surgical System and to distribute such product thereafter. Under the terms of the option agreement, the Company paid to Platform Imaging a non-refundable option fee of \$300,000 in three payments: (i) \$100,000 upon signing the option agreement; (ii) \$100,000 on January 2, 2016; and (iii) \$100,000 on October 1, 2016. In addition, the Company had the right at any time up to and including February 2, 2017, to exercise the option by paying a fee of \$1.3 million for the rights under the license agreement. Prior to February 2, 2017, Titan gave notice that it would not exercise the option. A former member of the Company's senior management was also a co-inventor of the technology, co-founder, significant shareholder, director and a member of senior management of Platform Imaging.

In the third quarter of 2015, the Company entered into an agreement with BSI Group America Inc. ("BSI"), a recognized European Notified Body, for BSI to perform the necessary assessments to certify the Company's quality management system for compliance with international and European requirements, as required for medical devices marketed in the European Union.

The Company's financings in 2015 included:

- On November 23, 2015, Longtai subscribed for and purchased U.S. \$4,000,000 worth of common share under a private placement, at a subscription price of CDN \$1.23 per common share.
- In November 2015, the Company completed a prospectus qualified offering of 9,349,593 units for gross proceeds of U.S.\$8,611,901. Each unit issued consisted of one common share and 0.75 of a Warrant. Each such whole Warrant entitles the holder thereof to purchase one additional common share for CDN\$1.60 and will expire November 16, 2020.

#### Significant Acquisitions

There were no significant acquisitions completed by Titan during its most recently completed financial year for which disclosure is required under Part 8 of National Instrument 51-102 – *Continuous Disclosure Obligations*.

# DESCRIPTION OF THE BUSINESS

# **Product Development**

The Company's business is focused on research and development through to the planned commercialization of computer-assisted robotic surgical technologies for application in minimally invasive surgery ("MIS"). The Company is developing the SPORT Surgical System, a single-port robotic surgical system. The SPORT Surgical System is comprised of a surgeon-controlled patient cart that includes a 3D high-definition vision system and multi-articulating instruments for performing MIS procedures, and a surgeon workstation that provides an advanced ergonomic interface to the patient cart and a 3D endoscopic view inside the patient's body. The Company intends to initially pursue focused surgical indications for the SPORT Surgical System, which may include one or more of gynecologic, urologic, colorectal or general abdominal procedures.

Development of the SPORT Surgical System has proceeded in response to "voice of customer" feedback and, consultation with medical technology development firms and input from the Company's Surgeon Advisory Board (the "Surgeon Advisory Board") comprised of key opinion leaders in targeted fields. This approach has allowed the Company to design a robotic surgical system that is intended to include the traditional advantages of robotic surgery including 3D stereoscopic imaging and restoration of instinctive control, as well as new and enhanced features, including an advanced surgeon workstation incorporating a 3D high-definition display providing a more ergonomically friendly user interface and a patient cart with improved instrument dexterity. Overall, the surgical system is designed to be adapted to the needs of the surgeon, rather than the surgeon having to adapt to the system.



The SPORT Surgical System patient cart is being developed to deliver interactive multi-articulating instruments and a 3D high-definition vision system into a patient's abdominal body cavity through a single access port. The design of the patient cart includes an insertion tube of approximately 25 millimeter (mm) diameter. The insertion tube includes a distal end incorporating a 3D high-definition camera module that once inserted, is configured to deploy into a working configuration wherein the camera module and multi-articulating instruments can be controlled by a surgeon via the workstation. The reusable multi-articulating, snake-like instruments are designed to couple with sterile detachable single patient use robotic end effectors that would provide first use quality in every case and eliminate the reprocessing of the complete instrument. The use of reposable (re-usable for a specific number of uses) robotic instruments and single patient use end effectors is intended to minimize the cost per procedure. The patient cart is also designed to include a mast, a boom and wheels for optimal configurability for a variety of surgical indications and the ability to be maneuvered within the operating room, or redeployed within hospitals and surgical centers, where applicable.

As part of the development of the SPORT Surgical System, the Company plans to develop a robust training curriculum and post-training assessment tools for surgeons and surgical teams. The proposed training curriculum will likely include cognitive pre-training, psychomotor skills training, surgery simulations, live animal and human cadaver lab training, surgical team training, troubleshooting and an overview of safety. Post-training assessment will include validation of the effectiveness of those assessment tools.

The Company continuously evaluates its technologies under development for intellectual property protection. As of December 31, 2017, the Company had ownership or certain exclusive rights to 20 patents and 48 patent applications. The Company anticipates expanding its intellectual property portfolio by filing additional patent applications as it progresses in the development of robotic surgical technologies, acquiring and/or by licensing suitable technologies. The Company had previously entered into exclusive license agreements with several organizations including the Trustees of Columbia University. During 2017, the Company gave notice of its intent to terminate each of these license agreements.

As part of its development and commercialization efforts, the Company has established certain milestones that it uses to assess its progress towards developing commercially viable robotic surgical technologies. These milestones relate to technology and design advancements as well as to targeted dates for regulatory submissions. To assess progress, the Company regularly tests and evaluates its technology. If such evaluations indicate technical defects or failure to meet cost or performance goals, the Company's commercialization schedule could be delayed and potential purchasers of its initial commercial systems may decline to purchase them or may choose to purchase alternative technologies. See "Risk Factors".

# **Development Objectives**

The Company employs a combination of internal resources and external development firms to execute the research, development and commercialization plan for the Company's robotic surgical system.

The Company estimates that it has sufficient capital on hand, including cash and deposits at subcontractors, to meet its development milestones for the first half of 2018. The ability of the Company to fund the third quarter 2018 development milestones with existing capital will be dependent on success in executing product improvements and the degree of positive surgeon feedback on those improvements during the first and second quarters of the year. The Company expects to complete the capital equipment engineering confidence build of the SPORT Surgical System based on the improved design by the end of the fourth quarter of 2018.

A complete estimate of the timing and costs for development milestones beyond 2018 is speculative. The Company does however estimate that a minimum of an additional U.S. \$50 million will be required beyond 2018 in order to submit its 510(k) application to the FDA, apply for the CE Mark, and if successful with those efforts, proceed with early commercialization activities. Given the uncertainty of, among other things, product development timelines, regulatory processes and requirements (such as the extent of live animal and human cadaver studies and confirmatory human studies), as well as the availability of required capital to fund development and operating costs, the actual costs and development times may exceed management's current expectations and an accurate estimate of the future costs of the regulatory phases and development milestones beyond 2018 is not possible at this time.

In addition to being capital intensive, research and development activities relating to the Company's SPORT surgical robot, which is a highly complex medical device are inherently uncertain as to future success and the achievement of desired results. If delays or problems occur during the Company's ongoing research and development activities, financial and human resources may need to be diverted toward resolving such delays or problems. Further, there is material risk that the Company's research and development activities may not result in a functional, commercially viable product or one that is approved by regulatory authorities. Please see "Risk Factors".



## Current Development Plan

The Company's current plan is to raise sufficient financing and to continue the development and commercialization of the SPORT Surgical System. The Company anticipates development costs through 2018 to be as set out in the table below (the "Current Development Plan").

The Current Development Plan differs from the development plan set forth in the Company's short form prospectus dated November 30, 2017 (the "November Prospectus"). After the date of the November Prospectus, the Company modified its development plan in response to the results of preclinical testing and inputs received from the FDA.

The results achieved by surgeons in operating prototypes in animal and cadaver studies during 2017 validated the potential for single-port surgeries to be performed with the SPORT Surgical System. However, the studies also confirmed that improvements to the system would be necessary before proceeding toward regulatory clearance and commercialization. The planning for engineering activities has already commenced, but the execution of those activities will increase the cost of product development and extend the timeline to commercialization. Furthermore, pursuant to communications with the FDA, the Company has determined that human clinical data will be required in submissions to the FDA. Whereas the Company previously anticipated submitting its 510(k) application to the FDA in the fourth quarter of 2018, it currently plans to do so late in the second half of 2019. These changes necessitated updates to the Company's development plan, resulting in the Current Development Plan differing from the development plan disclosed in the November Prospectus.

The Company anticipates that 2018 will be a year of intense product development in preparation for manufacturing, including hardware and software at all levels, involving the workstation, patient cart, camera and light source, instruments, and disposable components that facilitate successful surgery. This work must be completed before design freeze and proceeding with summative evaluation usability tests with the final product and validation studies required for regulatory filings. Based on the scope of product development ahead, the Company expects these tests and studies to take place in 2019, with the system in its final configuration and with training programs in place for new surgeon users.

During the first two months of 2018, costs were lower than originally estimated. As a result, the updated cost for the Q1 2018 milestone has been reduced.

The Company anticipates costs through 2018 to be as set out in the updated table below.

| Development Milestones                                                                                                                                                                                                                                            | Estimated Cost(in<br>U.S. \$ million) | Schedule for Milestone<br>Completion | Comments                |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|--------------------------------------|-------------------------|
| Based on preclinical study results, plan software development and<br>product upgrades including improvements to workstation, patient<br>cart, instruments, camera, light source and disposable components<br>Demonstrate first two modules of simulation software | 5.4 (2)                               | Q1 2018                              | Complete <sup>(6)</sup> |
| Prototype, test and procure surgeon feedback on revised workstation<br>controls<br>Complete software and hardware change requirements and finalize<br>computer and software                                                                                       | 9.1 (3)                               | Q2 2018                              | In Progress             |

- 9 -

| Development Milestones                                                                                                                                                                                                                                              | Estimated Cost (in<br>U.S. \$ million) | Schedule for<br>Milestone<br>Completion | Comments |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|-----------------------------------------|----------|
| architecture for production systems                                                                                                                                                                                                                                 |                                        |                                         |          |
| Complete revisions to instrument and lens wash system and demonstrate performance                                                                                                                                                                                   |                                        |                                         |          |
| Complete Camera Insertion Tube (CIT) engineering confidence build based on improved design                                                                                                                                                                          | 10.7 (4)                               | Q3 2018                                 |          |
| Complete design of SPORT surgeon workstation and patient cart for engineering confidence build                                                                                                                                                                      |                                        |                                         |          |
| Complete and demonstrate full suite of simulation software for beta test                                                                                                                                                                                            |                                        |                                         |          |
| Complete SPORT capital equipment engineering confidence build based on improved design                                                                                                                                                                              | 10.6 <sup>(5)</sup>                    | Q4 2018                                 |          |
| Document results of confidence build unit testing, implement design<br>improvements and schedule preliminary audit of quality system by<br>European Notified Body                                                                                                   | TBD(1)                                 | H1 2019                                 |          |
| Submit draft protocols to FDA in Q- submission(s) for comment                                                                                                                                                                                                       | TBD <sup>(1)</sup>                     | H2 2019                                 |          |
| Initiate SPORT Surgical System Design Freeze                                                                                                                                                                                                                        |                                        |                                         |          |
| Verify production system operation with clinical experts under<br>rigorous formal (summative) human factors evaluation under<br>simulated robotic manipulation exercises and through exercises of<br>the completed surgeon simulation software and training program |                                        |                                         |          |
| Complete and document preclinical live animal (swine), cadaver<br>surgery studies and human confirmatory studies according to final<br>protocols for FDA submittal                                                                                                  |                                        |                                         |          |
| Obtain 13485 Certification                                                                                                                                                                                                                                          |                                        |                                         |          |
| Submit technical file to European Notified Body for review for CE Mark                                                                                                                                                                                              |                                        |                                         |          |
| Submit 510(k) application to FDA                                                                                                                                                                                                                                    |                                        |                                         |          |
| TOTAL                                                                                                                                                                                                                                                               | TBD(1)                                 |                                         |          |

Notes:

- (2) Includes research and development costs estimated at approximately U.S. \$4.3 million, and general and administrative costs estimated at approximately US \$1.1 million.
- (3) Includes research and development costs estimated at approximately U.S. \$7.3 million, and general and administrative costs estimated at approximately US \$1.8 million.
- (4) Includes research and development costs estimated at approximately U.S. \$8.5 million, and general and administrative costs estimated at approximately US \$2.2 million.
- (5) Includes research and development costs estimated at approximately U.S. \$8.4 million, and general and administrative costs estimated at approximately US \$2.2 million.
- (6) As described above, the Company recently revised its development plan in response to preclinical test results and input from the FDA. As a result, in the first quarter of 2018, certain funds raised pursuant to the November Prospectus were redirected toward the uses described above in Milestone 1, rather than the uses set out in the November Prospectus. Going forward, certain other funds raised pursuant to the November Prospectus that at the time were intended for use on Milestone Q1 2018 and Milestone Q2 2018 (as such terms were defined in the November Prospectus) will instead be used to advance Milestone 1 and Milestone 2 as described herein.

<sup>(1)</sup> A specific schedule for milestone completion cannot be estimated at this time.

Upon completion of the development of the SPORT Surgical System and following receipt of all applicable regulatory clearances in the United States, Europe, and/or Asia, the Company intends to utilize a direct sales force and/or distribution partner(s) to initiate marketing the SPORT Surgical System to hospitals.

Due to the nature of technology research and development, there is no assurance that these objectives will be achieved, and there can be no assurance with respect to the time or resources that may be required. The Company expects that additional specific milestones could be identified as the development of its SPORT Surgical System progresses, or existing milestones, budgets and the schedule for completion of each milestone may change depending on a number of factors including the results of the Company's development program, the availability of financing and the ability of development firms engaged by the Company to complete work assigned to them. The total costs to complete the development of the SPORT Surgical System as referenced above are only an estimate based on current information available to the Company and cannot yet be determined with a high degree of certainty, and the costs may be substantially higher than estimated. Please see "*Caution Regarding Forward-Looking Statements*" and "*Risk Factors*".

# **Market Opportunity**

The Company's robotic surgical system is being designed to address the growing multi-billion-dollar, global robotically-assisted surgical devices market.

The size of the market for medical robotic systems is estimated to grow to \$17.9 billion by 2022, according to Grand View Research Inc.'s 2015 report titled "Medical Robotic Systems Market Analysis by Product (Surgical, Orthopedic, Laparoscopy, Neurological, Rehabilitation, Assistive, Prosthetics, Orthotics, Steerable, Therapeutic, Exoskeleton, Non-Invasive, Hospital/Pharmacy, Telemedicine, I.V, Pharmacy, Emergency Response Robotic Systems) and Segment Forecasts to 2022" (the "Grand View Report"). However, the Grand View Report covers "medical robotic systems" which is a broad range of robotic systems used in healthcare (including non-invasive radiosurgery, prosthetics, exoskeletons, hospital/pharmacy, etc.), as opposed to surgical robotic systems for the year 2014 and then applies a compound annual growth rate ("CAGR") of 12.8% for growth to project revenue through 2022. According to the Grand View Report, the "Surgical Robot" (robotically-assisted surgical devices) market segment comprises about 62% of the total revenue projection. In 2022 by that calculation, the projection for the surgical robotics market would be \$11.1 billion (62% of 17.9 billion).

Another source also arrives at a multi-billion-dollar market in *robotically-assisted surgical devices* by different methodology. The size of the global market for *robotically-assisted surgical devices* is projected by Life Science Intelligence Inc.'s Meddevicetracker to be \$5.3 billion by 2021, based on an October 2017 report titled "Global Robotically-Assisted Surgical Devices Market", number MDT 17015 (the "Meddevicetracker Report"). The Meddevicetracker Report focuses only on *robotically-assisted surgical devices* and uses actual 2016 data of \$3.04 billion in global revenue as the baseline. The Meddevicetracker Report then applies a CAGR of 11.7% to project global revenue for the next five years. Management considers this data to be more relevant to its target market than that estimated by the Grand View Report, as it focuses on the *robotically-assisted surgical devices* market segment that the Company expects to enter.

Both of the above-referenced market research reports are subjective and speak as of their original publication dates, (and not as of the date of this document), and the opinions and market data expressed in those reports are subject to change without notice. Management believes that these sources are generally reliable, but the accuracy and completeness of this information is not guaranteed. The information presented in the reports noted above and any underlying assumptions for the markets estimate and the projections contained therein have not been independently verified.

# Robotic Surgery

Surgery has traditionally been performed through large, open incisions. Over the past 25 years, minimally invasive techniques and devices have been employed to minimize the size of incisions, reduce trauma to patients, and in turn, reduce associated pain, accelerate healing, shorten recovery times and produce smaller scars. Some of these benefits, such as shorter recovery times and reduced pain leading to shorter hospital stays, are directly associated with lower costs of care. However, minimally invasive surgery ("MIS") requires special tools to operate through small ports in the body, and advanced training for surgeons to manipulate those tools while viewing a two-dimensional image of the patient's internal anatomy on a monitor. As a result, consistent outcomes improvements are demonstrated by the most skilled and experienced surgeons, and less reliably by those less experienced. For these reasons, the acceptance of MIS has not broadly increased in more complex surgeries.



The shortcomings of both open surgery and MIS have led to the introduction of robots within the surgical environment. Robotic or computer-assisted surgical technologies represent the next generation in the evolution of advanced surgical care. The objectives of robotic systems are to provide surgeons with tools to allow complex procedures to be performed repeatedly with greater precision and dexterity, while offering improved vision and control. The use of robotics is intended to empower surgeons to employ improved techniques for minimally invasive surgery, and assist in reducing the risks associated with complex MIS surgeries.

### Market Acceptance

To date, robotic surgical technologies have been employed in urology, gynecology, colon and rectal surgery, cardiothoracic surgery, general surgery, head and neck surgery, orthopedic surgery, neurosurgery, and catheter-based interventional cardiology and radiology.

The success of robotic technologies in these applications has led to the growing adoption and commercialization of these technologies in the medical industry. Although robotic surgical procedures have been gaining substantial acceptance, the industry is still in its infancy. The available technology is evolving along with advancements in imaging and computer-machine controls to overcome technical challenges. Current objectives include overcoming the limitations of multi-port access, limited dexterity and visualization.

#### Competitive Conditions

The entrenched industry leader within the robotic surgical market is Intuitive Surgical, Inc., manufacturer of several models of the da Vinci® Surgical System. Having entered the market in 2000, Intuitive Surgical's product line now includes multiple generations of da Vinci multi-port robotic systems, as well as a new single-port da Vinci SP model cleared by the FDA for urologic applications. Specifically related to abdominal surgery, a new competitor in multi-port robotic surgery recently emerged, with TransEnterix Inc. receiving FDA clearance for its Senhance<sup>TM</sup> Surgical Robotic System in October of 2017. In addition, Medrobotics Corporation recently received FDA clearance for abdominal indications for its Flex® Robotic System with manual endoscopic instruments, which had previously been cleared for natural orifice (ENT) surgery. Further, there are a number of companies reported to be developing robotically-assisted surgical systems, including Medtronic, Inc., Verb Surgical Inc. (a collaboration between Alphabet Inc.'s Verily division (formerly, Google Life Sciences) and Ethicon, a division of Johnson & Johnson), and South Korea's Meere Company Inc. (Eterne robotic system).

Any company with substantial experience in robotics or complex medical devices could potentially expand into the field of surgical robotics and become a future competitor.

#### Regulation

## United States Regulatory Process

In the United States, the Company's surgical system will be subject to regulation by the FDA. Management expects that under the FDA guidelines, the surgical system will be classified as a Class II medical device. Class II devices are those which are subject to the general controls and require premarket demonstration of adherence to certain performance standards or other special controls, as specified by the FDA, and clearance by the FDA. Premarket review and clearance by the FDA for these devices is accomplished through the 510(k) premarket notification process. For most Class II devices, the manufacturer must submit to the FDA a premarket notification submission, demonstrating that the device is "substantially equivalent" in intended use and technology to a "predicate device" that is either:

# - 12 -

- (1) a device that has grandfather marketing status because it was legally marketed prior to May 28, 1976, the date upon which the Medical Device Amendments of 1976 were enacted, or
- (2) a Class I or II device that has been cleared through the 510(k) process.

The FDA may require further information, including clinical data, to make a determination regarding substantial equivalence. If the FDA determines that the device, or its intended use, is not "substantially equivalent" (as such term is defined by the FDA), the FDA may place the device, or the particular use of the device, into Class III, and the device sponsor must then fulfill much more rigorous pre-marketing requirements.

After a device receives 510(k) clearance, any modification that could significantly affect its safety or effectiveness, or that would constitute a major change in its intended use, would require a new 510(k) clearance or could require a pre-market approval application. The FDA requires each manufacturer to make this determination in the first instance, but the FDA can review any such decision. If the FDA disagrees with a manufacturer's decision not to seek a new 510(k) clearance, the agency may retroactively require the manufacturer to seek 510(k) clearance or pre-market approval. The FDA may also require the manufacturer to cease marketing and/or recall the modified device until 510(k) clearance or pre-market approval is obtained.

# European Union and Canada Regulatory Process

Medical devices in the European Union ("EU") are regulated under EU Council Directive 93/42/EEC as amended by 2007/47/EC, also referred to as Medical Device Directive or MDD, and must bear the CE Mark prior to being placed on the market. In order to affix the CE Mark on products, a recognized European Notified Body must certify a manufacturer's quality management system for compliance with international and European requirements. Any modifications of existing products or development of new products in the future will require permission to affix the CE Mark to such products.

In order to commercialize products in Canada, regulatory approval from Health Canada (Therapeutic Products Directorate, Medical Devices Bureau) is required. Medical device licence applications must contain a valid ISO 13485:2003 certificate issued by a Health Canada recognized registrar under the Canadian Medical Devices Conformity Assessment System (CMDCAS). Evaluation of product safety and effectiveness is completed by Health Canada.

# Specialized Skill and Knowledge

The research and development of the Company's surgical system requires specialized skill and knowledge. We believe the required skill and knowledge to carry out the current stage of research and development is available to the Company, through its current officers, employees and external medical technology development firms. The Company will continue to assess its requirements and recruit and engage required qualified personnel and development firms as needed, subject to budget limitations. If the final research and development stage is successfully completed and the clinical-grade SPORT Surgical System is developed, it is believed that the materials and parts necessary for the manufacture of the product will be available in the marketplace. However, there is no assurance in this regard as the research and development program may, in the future, reveal requirements for new materials and parts that have not been identified to date.

# **Intellectual Property Protection**

The Company continuously evaluates its technologies under development for intellectual property protection. In accordance with industry practice, the Company's proprietary rights are currently protected through a combination of copyright, trade-mark, patents, trade secret laws and contractual provisions.

Patent applications are filed in various jurisdictions internationally, which are selectively chosen having regard to the likely value and enforceability of intellectual property rights in those jurisdictions, and to strategically reflect the Company's anticipated principal markets. Patents provide the Company with a potential right to exclude others from incorporating the Company's technical innovations into their own products and processes. Where appropriate, the Company licenses third party technologies to provide the Company with the flexibility to adopt preferred technologies.



As of the December 31, 2017, the Company had ownership of certain exclusive rights to 20 patents and 48 patent applications. The Company anticipates expanding its intellectual property portfolio by filing additional patent applications as it progresses in the development of robotic surgical technologies, acquiring and/or by licensing suitable technologies.

The scope of protection obtained, if any, from the Company's current or future patent applications may not be known for several years. Moreover, there is no assurance that any patents will be issued with respect to any such patent applications, and if patents are issued, they may not provide the Company with the expected competitive advantages, or they may not be issued in a manner that gives the Company the protection that it seeks, or they may be successfully challenged by third parties.

The Company also seeks to avoid disclosure of its intellectual property and proprietary information by requiring employees and consultants to execute non-disclosure and assignment of intellectual property agreements. Such agreements also require the Company's employees and consultants to assign to the Company all intellectual property developed in the course of their employment or engagement. The Company also utilizes non-disclosure agreements to govern interaction with business partners and other relationships where disclosure of proprietary information may be necessary, and the Company takes measures to carefully protect its intellectual property rights in any work performed by external development firms.

# Operations

The Company develops its core technologies through a combination of in-house personnel and selected external engineering and medical technology development and manufacturing firms. Certain components of the Company's robotic surgical system are being developed to the Company's specifications by various third party suppliers, medical technology development and manufacturing firms through purchase orders and it does not have long-term contracts with any third parties.

The Company maintains its head office at subleased premises in Toronto, Ontario.

## Employees

As of December 31, 2017, the Company had a total of nine full-time employees and one full-time consultant.

## Surgeon Advisory Board

The Company has assembled a surgeon advisory board consisting of the following surgeons who are widely regarded as leaders in the field of medical robotics or fields of surgery where robotics are expected to have a significant impact:

#### Arnold Advincula, M.D.

Dr. Advincula is Vice-Chair of Women's Health & Chief of Gynecology at the Sloane Hospital for Women, Columbia University Medical Center/New York Presbyterian Hospital. Formerly, he was Professor of Obstetrics and Gynecology, Director of the Minimally Invasive Surgery Division and Fellowship, and Director of the Endometriosis Center at the University of Michigan. More recently, he was Director of the Center for Specialized Gynecology and Director of the Education Institute at the Nicholson Center, an advanced medical and surgical simulation training facility at Florida Health. He is currently Vice President of the American Association of Gynecologic Laparoscopy and a Member-at-Large for the Society of Gynecologic Surgeons. He is a leader in minimally invasive surgical techniques and one of the world's most experienced gynecologic robotic surgeons, who has published and taught extensively in the area of minimally invasive surgery, as well as developed surgical instruments that are in use worldwide.

# W. Douglas Boyd, M.D.

Dr. Boyd is a Professor of Surgery and Director of Robotics and Biosurgery at the University of California Davis. He is Head of Adult Cardiac Surgery and Surgical Director of the Transcatheter Valve Program. He is recognized for his pioneering work in cardiothoracic surgery and for his use of robotic-assisted surgical systems. He specializes in minimally invasive cardiac and robotic-assisted heart surgery. Dr. Boyd completed the world's first closed-chest, beating-heart coronary artery bypass surgery using a robotic system in 1999. Prior to his appointment as a professor of surgery at UC Davis Health System, Dr. Boyd served as chair of the Department of Cardiothoracic Surgery at the Cleveland Clinic in Florida. As the author of more than 70 peer-reviewed journal articles, Dr. Boyd's research interests include cardiac tissue regeneration using extracellular matrix/stem cells, new techniques for robot-assisted minimally invasive coronary artery revascularization, valve surgery and tele-surgery. He is a graduate of Carleton University in Ottawa, Canada and obtained his medical degree from the University of Ottawa, Canada.

# William M. Burke, M.D.

Dr. Burke received his undergraduate and medical training at Columbia University College of Physicians and Surgeons followed by a fellowship in gynecologic oncology at the University of Michigan. After serving on the faculty at the University of Michigan, Dr. Burke returned to Columbia University as a faculty member in the Division of Gynecologic Oncology in 2006. Dr. Burke is board certified in obstetrics and gynecology and gynecologic oncology. Dr. Burke has served as the Director of Gynecologic Oncology at the Columbia-affiliated Valley Hospital. Dr. Burke is currently on staff at Stony Brook Hospital, Long Island, New York. He has won numerous teaching awards both at University of Michigan and at Columbia. Dr. Burke's clinical interests include chemotherapeutic and surgical options for advanced ovarian cancer, minimally invasive laparoscopic and robotic surgery for gynecologic malignancies and complex benign gynecologic problems, and treatment of pre-invasive conditions of the cervix, vulva, and vagina.

#### Demetrius EM Litwin, M.D.

Dr. Demetrius Litwin serves as Chair of Surgery at University of Massachusetts Medical School at Worcester, MA and University of Massachusetts Memorial Medical Center. Dr. Litwin trained in General Surgery at the University of Saskatchewan, and completed a hepatobiliary fellowship at the University of Toronto. He was a leader in educating a large number of surgeons across Canada in basic and advanced laparoscopic techniques. In 1993, Dr. Litwin became the Director of Minimally Invasive Surgery at the University of Toronto. In 1997, he moved to the University of Massachusetts as Chief of Minimally Invasive Surgery. Since 2004, he has been Chairman of Surgery at the University of Massachusetts Medical School and University of Massachusetts Memorial Medical Center, one of the largest Academic Health Sciences Centers in Massachusetts.

# Vipul Patel, M.D. FACS

Dr. Patel is the medical director of the Global Robotics Institute at Florida Hospital Celebration Health and Medical Director of the Florida Hospital Cancer Institute Urologic Oncology Program. He is the founder of the International Prostate Cancer Foundation (IPCF) and a founding member and now president of the Society of Robotic Surgery. He serves as an honorary professor at the University of Milan, Korea University and Ricardo Palma University in Lima, Peru, and was recently made an honorary professor of the Russian Academy of Science. He is one of the most experienced robotic surgeons in the world and has personally performed over 10,000 robotic prostatectomies. Dr. Patel previously served as director of the Robotic Surgery Program at The Ohio State University in Columbus, Ohio, prior to joining Florida Hospital Celebration Heath in 2008. Dr. Patel is board certified by the American Urological Association and completed his residency and fellowship training at the University of Miami in Florida.

## Eduardo Parra- Davilla, M.D.

Dr. Parra-Davila is the Director for Minimally Invasive and Colorectal Surgery and Director of Hernia and Abdominal Wall Reconstruction at Florida Hospital Celebration Health. He is a well-respected national and international surgeon. He has trained over a thousand surgeons worldwide and has performed surgical procedures in numerous countries utilizing the latest techniques in hernia, minimally invasive and robotic surgery. Dr. Parra-Davila is Board Certified in General Surgery and Colorectal Surgery. He completed his Fellowship in Advanced Laparoscopy and Minimally Invasive Surgery at Texas Endosurgery Institute in San Antonio, Texas and Colon and Rectal Surgery at The University of Texas in Houston, Texas. His Residency was completed at Jackson Memorial Hospital, University of Miami, in Miami, Florida. He obtained his Medical Degree from The Universidad De Los Andes in Venezuela.

#### - 15 -

#### Lee L. Swanstrom, M.D.

Dr. Swanstrom heads the Division of GI and Minimally Invasive Surgery at the Oregon Clinic and is Director of Providence Health System's Complex GI and Foregut Surgery Postgraduate Fellowship Program. In addition, he is Clinical Professor in the Department of Surgery at Oregon Health & Science University (OHSU), a Director of the American Board of Surgery, and Past President of both the Society of American Gastrointestinal Endoscopic Surgeons (SAGES) and the Fellowship Council (FC). Most recently, he became the Chief Innovations Officer and Director of the Innovations Fellowship at the Institutes des Hôpitalo Universitaires of the University of Strasbourg, France. He is the editor of Surgical Innovation and the author of over 300 scientific papers and 50 book chapters. This has resulted in 13 patents and a successful medical device start-up company. He is and has been an investigator on numerous outcomes research studies for new procedures such as Natural Orifice Translumenal Endoscopic Surgery (NOTES) to determine their safety and efficacy for establishing new standards of care. He remains focused on developing innovative approaches to the minimally invasive treatment of foregut and other gastrointestinal disorders.

### John Valvo, M.D.

Dr. Valvo, a practicing surgeon, is the Executive Director of Robotic and Minimally Invasive Surgery at Rochester General Hospital in Rochester, New York, where he formerly was the Chief of Urology. Following a 20-year career performing open surgery, Dr. Valvo founded the robotic surgery program at Rochester General Hospital in early 2004, which currently ranks in the top two percent of robotic surgery volume in the United States. The program has trained over 30 robotic surgeons and enabled the completion of more than 7,000 robotic urology, general and colorectal surgeries. Dr. Valvo has authored more than 100 scientific articles and helped start many robotic programs in the northeast. His focus on robotic surgery credentialing led to a notable published paper on policy guidelines for robotic surgery. He is a fellow of the American College of Surgeons and American Urological Association, and a member of the Society for Laparoscopic Surgeons.

## RISK FACTORS

Investing in the Company's securities involves a high degree of risk. Before making an investment decision with respect to the Company's securities, potential investors should carefully consider the following risk factors, in addition to the other information included or incorporated by reference into this annual information form, as well as the Company's historical financial statements and related notes. The risks set out below are not the only risks that the Company faces, however management has identified the risks below as specific risks to the Company. If any of the following risks materialize, the Company's business, financial condition, prospects or results of operations will likely suffer. In that case, the trading price of the Company's common shares and warrants could decline and an investor may lose all or part of the money paid to buy the Company's securities.

#### The Business of the Company - General

# Additional Financing and Going Concern

The Company will require additional financing in order to continue its research and development program through to completion and take advantage of future opportunities. The ability of the Company to arrange such financing in the future will depend in part upon prevailing capital market conditions, as well as upon the business success of the Company. There can be no assurance that the Company will be successful in its efforts to arrange additional financing on terms satisfactory to the Company. If additional financing is raised by the issuance of shares or convertible securities from treasury, control of the Company may change and shareholders may suffer additional dilution. If additional are raised through strategic partnerships, the Company may be required to relinquish rights to its products, or to grant licences on terms that are not favorable to the Company. If adequate funds are not available, or are not available on acceptable terms, the Company may not be able to take advantage of opportunities, or otherwise respond to competitive pressures, which may delay or reduce the Company's operations and ability to remain business and continue as a going concern.

## History of Losses

The Company has a history of losses, and there is no assurance that any of its contemplated products will generate sustainable earnings, be profitable or provide a return on investment in the future. The Company has not paid dividends in the past. Its directors will determine the future dividend policy of the Company if the Company generates earnings in the future, based on operational circumstances at that time. The Company had negative cash flow from operating activities for its fiscal year ended December 31, 2017 and this negative cash flow is expected to continue.



# Strategic Alliances

The Company relies upon, and expects to rely upon, strategic alliances with original equipment manufacturers (if and when the Company's technology is commercialized) and medical technology development firms for development contracts, assistance in product design and development, volume purchase orders and manufacturing and marketing expertise. There can be no assurance that the strategic alliances will achieve their goals.

# Dependence on Key Personnel

The Company's future success and growth depends in part upon the experience of key members of management. If, for any reason, any one or more of such key personnel do not continue to be active in the Company's management, the operations and business prospects of the Company could be adversely affected. In particular, the losses of the services of any of the Company's senior management or other key employees integral to the development of its technology and the generation of a functional, commercially viable product, or the inability to attract and retain necessary technical personnel in the future, could have a short term material adverse effect upon the Company's business, financial condition, prospects, operating results and cash flows. The Company does not currently maintain "key man" insurance for any senior management or other key personnel.

# Ability to Attract Qualified Employees to Maintain and Grow Business

The Company expects that its potential expansion into areas and activities requiring additional expertise, such as further preclinical studies, regulatory and governmental approvals, manufacturing, sales, marketing and distribution will place additional requirements on its management, operational and financial resources. The Company expects these demands will require an increase in management and scientific and technical personnel and the development of additional expertise by existing management personnel. There is currently aggressive competition for employees who have experience in technology and engineering. The failure to attract and retain such personnel or to develop such expertise could materially adversely affect the Company's business, financial condition and results of operations.

# Breach and Loss of Trade Secret Rights and Other Proprietary Information

The Company relies on trade secrets and confidential information, which it seeks to protect, in part, through confidentiality and non-disclosure agreements with its employees, collaborators, suppliers, and other parties. There can be no assurance that these agreements will not be breached, that the Company would have adequate remedies for any such breach or that its trade secrets and confidential information will not otherwise become known to or independently developed by competitors. The Company might be involved from time to time in litigation to determine the enforceability, scope and validity of its proprietary rights. Any such litigation could result in substantial cost and divert management's attention from operations.

#### **Dependence on Third Parties**

The Company is dependent on third parties to conduct its preclinical studies and to provide services for certain important aspects of its business. If these third parties do not perform as contractually required or expected, the Company may not be able to obtain regulatory approval for its products, or may be delayed in doing so.

The Company relies on third parties, such as technology design and development firms, contract research organizations, medical institutions, academic institutions, independent clinical investigators and contract laboratories, to conduct technology development, preclinical studies, and it expects to continue to do so in the future. The Company relies heavily on these parties for successful execution of technology development and preclinical studies, but does not control many aspects of their activities. As a result, many important aspects of product development are outside the direct control of the Company. If the third parties conducting preclinical studies do not perform their contractual duties or obligations, do not meet expected recruitment or other deadlines, fail to comply with good laboratory practice regulations, do not adhere to protocols or otherwise fail to generate reliable preclinical data, development, approval and commercialization of the Company's products may be extended, delayed or terminated or may need to be repeated, and the Company may not be able to obtain regulatory approval.

- 17 -

#### Competition

The robotic surgical market for the Company's products is highly competitive with respect to, among other factors: pricing, product and service quality, and the time required to introduce new products and services. New products may be slow to be accepted into the market or may not be accepted at all. The Company is constantly exposed to the risk that its competitors may implement new technology before the Company does, or may offer lower prices, additional products or services or other incentives that the Company cannot and will not offer. The Company can give no assurances that it will be able to compete successfully against existing or future competitors. Competition in the Company's markets is intense, and the Company expects competition to increase. The market for robotic surgery technologies is susceptible to price reductions among competitors seeking relationships with large and well capitalized businesses.

The Company's ability to compete successfully depends on a number of factors, including:

- the successful identification and development of new products for the Company's core market;
- the Company's ability to anticipate customer and market requirements and changes in technology and industry standards in a timely manner;
- the Company's ability to gain access to and use technologies in a cost-effective manner;
- the Company's ability to introduce cost-effective new products in a timely manner;
- the Company's ability to differentiate its products from its competitors' offerings;
- the Company's ability to gain customer acceptance of its products;
- the performance of the Company's products relative to its competitors' products;
- the Company's ability to market and sell the Company's products through effective sales channels;
- the Company's ability to establish and maintain effective internal financial and accounting controls and procedures;
- the Company's ability to obtain required regulatory clearances and approvals in a timely manner;
- · the protection of the Company's intellectual property, including its processes, trade secrets and know-how; and
- the Company's ability to attract and retain qualified technical, executive and sales personnel.

# Infringement of Intellectual Property Rights

The Company's commercial success depends, in part, upon the Company not infringing intellectual property rights of others. A number of medical device and robotic surgery companies and other third parties have been issued patents and other proprietary rights, may have filed applications for patents and other proprietary rights, and may obtain additional patents and other proprietary rights, for technologies similar or identical to those being developed or utilized by the Company. Accordingly, there may currently exist third party patents, patent applications or other proprietary rights that may require the Company to alter its technology or proposed products, obtain licenses, or cease certain activities. The Company may become subject to claims by third parties that the Company's technology or products infringes the third parties' intellectual property rights for any reason, including due to the growth of products in target markets, the overlap in functionality of those products and the prevalence of products.

The Company may become subject to these claims either directly by the third parties, or through indemnities against these claims that it may provide to end-users, manufacturer's representatives, distributors, value added resellers, system integrators and original equipment manufacturers.

Litigation before the courts of jurisdictions, or proceedings before patent offices, may be necessary to determine the scope, enforceability and validity of third party proprietary rights and the Company's proprietary rights. Some of the Company's competitors have, or are affiliated with companies having, substantially greater resources than the Company and these competitors may be able to sustain the costs of complex intellectual property litigation and proceedings to a greater degree and for a longer period of time than the Company. Regardless of their merit, any claims relating to intellectual property scope, enforceability, validity, or infringement could be time consuming to evaluate and defend, result in costly litigation, cause product shipment delays or stoppages, divert management's attention and focus away from the business, subject the Company to significant liabilities and equitable remedies, including injunctions, require the Company to enter into costly royalty or licensing agreements and/or require the Company to modify or stop developing or commercializing certain technologies and products unless it obtains a license from a third party. There can be no assurance that the Company would be able to obtain any such license on commercially favourable terms or at all. If it does not obtain such a license, it could be required to cease the development and sale of certain of its products.

# Intellectual Property

There is no guarantee that the patent applications owned by the Company will be granted, or, even if allowed to grant, that the patent applications will be granted in their current form or granted with a scope of protection sufficient to protect the Company's commercially valuable technology. The scope of protection, if any, that may be afforded by the patent applications of the Company is uncertain. Further, even if patents issue from the Company's pending or future applications, those issued patents and any previously assigned patents of the Company may be invalid or have a narrower scope of protection, and may be subject to invalidation proceedings commenced by third parties. The validity of an issued patent may be attacked on a number of different grounds, and such invalidation proceedings are inherently unpredictable. If such an invalidation proceeding commenced by a third party in respect of an issued patent owned by the Company is successful, the subject patent will be ordered invalid and therefore unenforceable.

The success of the Company will depend, in part, on its ability to obtain and maintain protection over its technology and products and not infringe the proprietary rights of third parties. Despite precautions, it may be possible for a third party to copy or otherwise obtain and use the Company's technology without authorization. There can be no assurance that any steps taken by the Company will prevent misappropriation of its technology. Litigation could result in substantial costs and diversion of resources and could have a material adverse effect on Company's business, operating results and/or financial condition.

#### Trade-marks

Although the Company has registrations and pending applications for certain trade-marks, it may not own or license trade-mark registrations for the marks and names that it is currently using in connection with products under development, or for the Company's name, in any jurisdiction including the proposed principal markets where the Company plans to market and sell the SPORT Surgical System following regulatory clearance and commercialization of its surgical system. The Company may be unable to obtain or maintain trade-mark registrations for the marks and names it uses in one or more countries. It is possible that the use of "SPORT", "SPORT Surgical System", "Titan", "Titan Medical" or variations thereof may infringe or contravene the rights, including trade-mark rights, of other parties in one or more countries. In the event of actual or alleged infringement or contravention of rights, the Company may be forced to cease using these marks and names. There may be a substantial risk of litigation or other legal proceedings in one or more countries relating to the alleged infringement or contravention of another party's trade-mark rights. These proceedings may occur even if the Company cases using these marks and names. The Company may noccur even if the Company ceases using these marks and names. The Company may noccur even if the Company ceases using these marks and names. The Company may nocceedings may occur even if the Company may not be successful in such legal proceedings, and may be required or agree to cease using these marks and names and names and pay other parties significant amounts of money. The Company may incur substantial costs to change the names and marks used in association with its products. In any such events, the business and operations of the Company could be materially adversely affected.

### - 19 -

### **Current Global Financial Conditions**

Current global financial markets have been subject to increased volatility. Access to financing has been negatively impacted in Canada, the United States and elsewhere. As such, the Company is subject to counter-party risk and liquidity risk. The Company is exposed to various counter-party risks including, but not limited to: (i) risks relating to financial institutions that hold the Company's cash; (ii) risks relating to companies that have payables to the Company or to whom the Company has made prepaid expenditures; and (iii) risks relating to the Company's insurance providers.

The current state of the global financial markets may negatively impact the ability of the Company to obtain loans and other credit facilities in the future and, if obtained, on terms favourable to the Company. If levels of volatility are increased or there is market turmoil, the Company's planned growth could be adversely impacted and the trading price of the Company's securities could be adversely affected.

Customers may reduce or postpone expenditures in view of the uncertainty of the global credit and financial markets and the limitations on available credit. Additional impacts of prevailing global financial conditions may include the inability of key suppliers or distribution partners of the Company to remain solvent and/or to obtain sufficient financing for the development and manufacture of its prototypes and products (at the appropriate stages of development), and sales of its products.

#### **Conflicts of Interest**

Certain directors, officers and advisors of the Company are also directors, officers, advisors or shareholders of other companies. Such associations may give rise to conflicts of interest from time to time. The directors of the Company will be required by law to act honestly and in good faith with a view to the best interests of the Company and to disclose any interest which they may have in any project or opportunity of the Company. If a conflict arises at a meeting of the board of directors, any director with a conflict will disclose their interest and abstain from voting on such matter. In determining whether or not the Company will participate in any project or opportunity, the board will consider merit of the opportunity and the degree of risk to which the Company may be exposed, along with its financial position at that time.

## **Results of Operations**

The results of operations of the Company will depend upon numerous factors, including:

- the successful development and commercialization of the SPORT Surgical System in a timely manner and in accordance with budgeted expenditures;
- the extent to which the Company's products gain market acceptance;
- actions relating to regulatory matters;
- timing and ability to develop manufacturing and sales and marketing capabilities;
- demand for products;
- the progress of surgical training in the use of products;
- ability to develop, introduce and market new or enhanced versions of the Company's products on a timely basis;
- product quality problems;
- ability to protect proprietary rights and defend against third party challenges; and
- ability to license additional intellectual property rights as required.

#### - 20 -

### Rapidly Changing Markets Make it Difficult to Forecast Future Operating Results

The Company operates in markets characterized by technological change. The Company will likely be required to reposition its product and service offerings in the future and introduce new products and services as the Company encounters rapidly changing requirements from its customers and increasing competitive pressures. The Company may not be successful in doing so in a timely and responsive manner, or at all. As a result it is difficult to forecast future revenues and plan operating expenses appropriately, which also makes it difficult to predict future operating results.

## Uncertain Market/Uncertain Acceptance of the Company's Technology/Target Market

The market for the Company's proposed technology is relatively new and is likely to undergo substantial development and changes. The market for the Company's technology may develop more slowly than the Company anticipates, in which case the Company may be unable to recover the losses it has incurred in the development of its technology and may never achieve profitability. The Company cannot guarantee that this market will develop as anticipated or that the Company will achieve a market share necessary to achieve profitability and growth.

There is no assurance that physicians and surgeons will choose the Company's products (once they are commercialized) over the products offered by its competitors. There is also no assurance that robotic surgical systems will continue to be used (or their use increased) by potential customers and that robotic surgical technology will be competitive (based on costs and performance factors) with, and preferred over, conventional and well established medical treatment and surgical methods including conventional minimally invasive surgery and open surgery.

#### **Technological Advancements**

The existing competitors could advance their products and new competitors could enter the market with superior technology. New and competitive products introduced into the marketplace that are based on or incorporate more advanced technologies may already impact the Company's operating and financial results.

### Insurance and Uninsured Risks

The Company's business is subject to a number of risks and hazards including adverse conditions or changes in the regulatory environment. Such occurrences could result in damage to equipment, personal injury or death, monetary losses and possible legal liability. Despite any insurance coverage which the Company currently has or may secure in the future, the nature of these risks is such that liabilities might exceed policy limits, the liabilities and hazards might not be insurable, or the Company may elect not to insure against such liabilities due to high premium costs or other reasons, in which event the Company could incur significant costs that could have a materially adverse effect upon its financial position.

## Ability to License Other Intellectual Property Rights

The technology of the Company may require the use of other existing technologies and processes which are currently, or in the future will be, subject to patents, copyrights, trade-marks, trade secrets and/or other intellectual property rights held by other parties. The Company may need to obtain one or more licenses to use those other existing technologies. If the Company is unable to obtain licenses, on reasonable commercial terms, from the holders of such intellectual property rights, the Company could be required to halt development and manufacturing or redesign its technology, failing which it could bear a substantial risk of litigation for infringement or misappropriation of such intellectual property rights. In any such event, the business and operations of the Company could be materially adversely affected.

#### **Government Regulation**

The clinical testing, manufacturing, sale and distribution of the Company's contemplated product are governed by an array of regulatory bodies in countries where the Company may intend to conduct business including requiring approvals from the Canadian Health Protection Branch, clearance to market from the FDA and European CE Mark approval. Applications for these approvals and clearances have not been made and there can be no assurances that applications for such approvals and clearances will be filed in a timely manner as planned, or will be received, or will be granted approval or clearance, or if such approvals and clearances are granted, that the Company will be able to comply with the conditions and requirements of such approvals and clearances. Failure to obtain such approvals and clearances or to comply with such conditions and requirements may have a material adverse effect on the Company's business, financial condition and results of operation.



Regulatory requirements and standards for approval or clearance of medical devices are subject to change and the adaptation of the Company's technology development program to meet the changing requirements and standards may cause the Company to incur substantial expenditures and may result in substantial delays in the achievement of and changes to the technology development milestones as well as escalations in the corresponding budgets. Such changes may require the performance and collection of extensive human clinical studies and data which could add significant expense and substantially lengthen timelines to commercialization. These changes may have an adverse effect on the Company's ability to commercialize its products and its results of operations and financial condition.

### Profitability

There is no assurance that the Company will earn profits in the future, or that profitability will be sustained. The medical device industry requires significant financial resources, and there is no assurance that future revenues will be sufficient to generate the funds required to continue the Company's business development and marketing activities. If the Company does not have sufficient capital to fund its operations, it may be required to reduce its research and development efforts or in the future reduce its marketing efforts or forego certain business opportunities.

## **Changes in Government Policy**

The Company's results may be affected by changes in trade, monetary and fiscal policies, laws and regulations, or other activities of the Canadian, United States and foreign governments, agencies and similar organizations. The Company's results may be affected by social and economic conditions which impact the Company's operations.

## Changes in Accounting and Tax Rules

The Company is subject to numerous tax and accounting requirements, and changes in existing accounting or taxation rules or practices, or varying interpretations of current rules or practices, could have a significant adverse effect on the financial results of the Company or the manner in which the Company conducts its business. The Company has issued its financial statements for the year ended December 31, 2017 in accordance with International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board ("IASB").

In the future, the geographic scope of the Company's business may expand, and such expansion will require it to comply with the tax laws and regulations of multiple jurisdictions. Requirements as to taxation vary substantially among jurisdictions. Complying with the tax laws of these jurisdictions can be time consuming and expensive and could potentially subject the Company to penalties and fees in the future if it were to inadvertently fail to comply. In the event the Company were to inadvertently fail to comply with applicable tax laws, this could have a material adverse effect on the business, results of operations, and financial condition of the Company.

### **Contingent Liabilities**

Contingent liabilities for contractual and other claims with customers, development firms, suppliers and former employees to which the Company may become party to in the future may have a material adverse effect on its financial position.

## The Business of the Company – Research and Development Operations

### Uncertainty as to Product Development and Commercialization Milestones

The Company has established product development and commercialization milestones that it uses to assess its progress toward developing a commercially viable product. These milestones relate to technology and design improvements as well as to dates for achieving development goals and projected expenditures. To assess progress, the Company tests and evaluates its technology under simulated conditions. If such evaluations indicate technical defects or failure to meet cost or performance goals, the Company's commercialization schedule could be delayed and potential purchasers of its initial commercial systems may decline to purchase them or they may choose to purchase alternative technologies. Whether or not the Company meets its milestones, there is no assurance that the Company's technology will be successful in the market. The Company expects that additional specific milestones could be identified as the development of factors including the results of the Company's development program, the availability of financing and the ability of development firms engaged by the Company to completed work assigned to them.



#### Product and Services Not Completely Developed

The future success of the Company is substantially dependent on a continued research and development effort thus far directed by certain of its key managers. In addition to being capital intensive, research and development activities relating to sophisticated technologies, such as those of the Company, are inherently uncertain as to future success and the achievement of a desired result. If delays or problems occur during the Company's ongoing research and development process, important financial and human resources may need to be diverted toward resolving such delays or problems. Further, there is a material risk that the Company's research and development activities may not result in a functional, commercially viable product or one that is approved by regulatory authorities.

### Manufacturing Risks

The manufacture of prototypes and products, once commercialized, will involve complex processes and the manufacturers engaged by the Company may encounter difficulties initiating and maintaining production. In the future, there could be a significant disruption in the supply of materials or products from current sources or, in the event of a disruption, the Company might not be able to locate alternative suppliers of materials, components or products of comparable quality at an acceptable price, or at all. In addition, the Company cannot be certain that its manufacturers will be able to complete the production of the prototypes or to fill its orders for its products, once commercialized, in a timely manner. If the Company experiences significant increased demand, or needs to replace an existing manufacturer, there can be no assurance that additional supplies of product or additional manufacturing capacity will be available when required on terms that are acceptable to the Company, or at all. In addition, even if the Company is able to expand existing manufacturing or find new manufacturing, the Company may encounter delays in production. Any delays, interruption or increased result in lower revenues and net income.

### **Reliance on External Suppliers and Development Firms**

The Company is dependent on external suppliers and development firms to conduct its technology research and development and manufacturing of evaluation units of the SPORT Surgical System. If these external firms seek to impose conditions on their obligations to conduct their work in addition to or different from the terms set forth in their engagement agreements and the Company is unable to satisfy those conditions or they do not otherwise perform as contractually required or expected, the Company may not be able to complete the development of the SPORT Surgical System, or the Company may be delayed in doing so, and the costs for developing its products may significantly increase beyond those forecasted. In the event that external development firms do not resume, or they do not otherwise carry on, the development work on the SPORT Surgical System on conditions and in a manner that is agreeable to the Company, it may engage other firms to take on the development work and in that case, the estimated costs of the development milestones may increase and the schedule for completion of each milestone may be delayed.

The Company relies heavily on external parties for successful execution of the SPORT Surgical System development program, but does not control many aspects of their activities. As a result, many important aspects (including costs and timing) of product development are outside the direct control of the Company.

The Company is responsible for ensuring that the SPORT Surgical System is being developed to meet the guidelines and requirements of the FDA and other regulatory authorities, applicable laws and regulations and industry standards. The Company's reliance on third parties does not relieve it of these responsibilities.

- 23 -

Additionally, if the external firms conducting preclinical or clinical studies do not perform their contractual duties or obligations, do not meet expected deadlines, fail to comply with good laboratory practice regulations, do not adhere to the Company's study protocols or otherwise fail to generate reliable clinical data, development, approval and commercialization of its products, may be extended, delayed or terminated or may need to be repeated, costs may significantly increase and the Company may not be able to obtain regulatory approval within the time frames forecasted, if at all.

### Product Defect Risks

A malfunction or the inadequate design of the Company's contemplated products could result in product liability or other tort claims. Accidents involving the Company's products could lead to personal injury, death or physical damage. Any liability for damages resulting from malfunctions could be substantial and could adversely affect the Company's business and results of operations. In addition, a well-publicized actual or perceived problem could adversely affect the market's perception of the Company's products. This could result in a decline in demand for the Company's products, which would adversely affect its financial condition and results of operations.

If any of the Company's contemplated products prove defective, the Company may be required to redesign or recall such products. This redesign or recall may cause the Company to incur significant expenses, disrupt sales and adversely affect the reputation for the Company and its products, which could adversely impact its revenue, operating results and profitability.

### Supplier Risks

The Company is substantially dependent on a small number of external development and manufacturing firms for its technology and products. Key suppliers and development firms could go out of business, be purchased by competitors or infringe on another company's intellectual property and may consequently be unable to continue to supply the Company. In these circumstances, the Company may be unable to find alternative suppliers in a timely manner and the resulting delay may have an adverse effect on the Company's operating results and financial condition.

## Securities of the Company

#### Stock Price Volatility

The common shares and certain warrants of the Company trade in Canada on the Toronto Stock Exchange and the common shares also trade in the United States on the OTCQB. The Company cannot predict the extent to which investor interest will lead to the development of an active and liquid trading market in its common shares and warrants and it is possible that an active and liquid trading market will not develop or be sustained. Some companies that have volatile market prices for their securities have had securities class action lawsuits filed against them. If a lawsuit were to be commenced against the Company, regardless of its outcome, it could result in substantial costs and a diversion of management's attention and resources. The price of common shares and warrants may fluctuate in response to a number of events, including but not limited to:

- its quarterly operating results;
- sales of the Company's common shares by a principal shareholder;
- future announcements concerning the business of the Company or of its competitors;
- the failure of securities analysts to cover the Company and/or changes in financial forecasts and recommendations by securities analysts;
- actions of the Company's competitors;
- actions of the Company's suppliers;
- actions of any medical technology development firms engaged by the Company;

- actions of directors and officers regarding purchases and sales of shares;
- general market, economic and political conditions;
- natural disasters, terrorist attacks and acts of war; and
- the other risks described in this section.

## Future Share Sales

Additional equity financings or other share issuances by the Company could adversely affect the market price of the Company's shares. Sales by existing shareholders of a large number of shares of the Company's shares in the public market and the sale of shares issued in connection with acquisitions or strategic alliances, or the perception that such additional sales could occur, could cause the market price of the Company's shares to drop.

## Limited Operating History

The Company is a robotic surgery technology development company with a limited operating history. Future operating results may be difficult to predict. The Company is in the development stage and has been engaged in research and product development since its inception. There are many regulatory steps that must be completed as part of the development program before the Company's technology can be commercialized and a product is available for the market. These regulatory steps are costly and uncertain. The future success of the Company's business will depend on the ability to design and obtain regulatory approvals and clearances for new products, manufacture and assemble current and future products in sufficient quantities in accordance with applicable regulatory requirements and at lower costs, which the Company may be unable to do. There is a limited history of operations upon which to evaluate the Company's business and its prospects. Operating expenses have increased since inception due to the development program. The lack of a significant operating history may limit an investor's ability to make a comparative evaluation of the Company, its products and its prospects. The Company has not generated revenue since its inception.

### Fluctuating Financial Results

The Company's financial results may vary significantly from period to period. The financial results may fluctuate as a result of a number of factors that may be outside of the Company's control, which may cause the market price of the common shares to fall. For these reasons, comparing the Company's operating results on a period-to-period basis may not be meaningful, and an investor should not rely on past results as an indication of future performance. Financial results may be negatively affected by any of the risk factors listed in this "Risk Factors" section.

### Effect of Estimates Regarding Milestones

For planning purposes, the Company estimates and may disclose timing of a variety of clinical, regulatory and other milestones. The Company bases its estimates on present facts and a variety of assumptions. Many underlying assumptions are outside the control of the Company such as the ability to perform preclinical and clinical studies, obtain access to preclinical and clinical evaluation sites, receive approval from evaluation sites to collect confirmatory human data as expected, or obtain approvals or clearance from regulatory bodies such as the FDA. If the Company does not achieve milestones consistent with investors' expectations, the price of its common shares and warrants would likely decline.

#### **Currency Fluctuations**

The Company's operating results are subject to fluctuations in foreign currency exchange rates.

## DIVIDENDS

The Company has not declared or paid dividends in the past. The Company presently intends to retain future earnings, if any, to finance the expansion and growth of its business. Any future determination to pay dividends will be at the discretion of the Company's board of directors and will depend on the Company's financial conditions, results of operations, capital requirements and other factors the board of directors deems relevant. The Company had negative cash flow from operating activities for its fiscal year ended December 31, 2017 and the negative cash flow is expected to continue.

There are no other restrictions on the Company's ability to pay dividends. However, the *Business Corporations Act*(Ontario) does not permit a corporation to pay dividends if the corporation is, or would after the payment, be unable to pay its liabilities as they become due or the realizable value of the corporation's assets would thereby be less than the aggregate of its liabilities and stated capital of all classes. In addition, the terms of any future debt or credit facility may preclude the Company from paying dividends.

### CAPITAL STRUCTURE

The authorized capital of the Company consists of an unlimited number of common shares of which 380,601,684 were issued and outstanding as at December 31, 2017. The holders of common shares are entitled to receive notice of and to attend all annual and special meetings of the Company's shareholders and to one vote in respect of each common share held at the record date for each such meeting. The holders of common shares are entitled, at the discretion of the Board of Directors, to receive out of any or all of the Company's profits or surplus properly available for the payment of dividends, any dividend declared by the Board of Directors and payable by the Company on the common shares. The holders of the common shares will participate rateably in any distribution of the assets of the Company upon liquidation, dissolution or winding-up or other distribution of the assets of the Company. Such participation will be subject to the rights, privileges, restrictions and conditions attached to any of the Company's fully paid and are non-assessable.

The Company also had outstanding as at December 31, 2017 and aggregate of 153,257, 634 Warrants that were issued in connection with prior offerings. These Warrants include:

| Ticker<br>Symbol | Issue<br>Date         | Expiry<br>Date        | Number<br>Issued | Number<br>Outstanding | Exercise<br>Price<br>(CDN \$) | Potential<br>Proceeds of<br>exercise of<br>Warrants<br>(CDN \$) <sup>(1)</sup> |
|------------------|-----------------------|-----------------------|------------------|-----------------------|-------------------------------|--------------------------------------------------------------------------------|
| TMD.WT.C         | March 13,<br>2013     | March 13, 2018        | 6,260,763        | 5,260,705             | \$1.25                        | 6,575,881                                                                      |
| TMD.WT.F.        | November<br>16, 2015  | November<br>16, 2020  | 7,012,195        | 7,012,195             | \$1.60                        | 11,219,512                                                                     |
| TMD.WT.G         | February<br>12, 2016  | February<br>12, 2021  | 11,670,818       | 11,600,818            | \$1.00                        | 11,600,818                                                                     |
|                  | February 23, 2016     | February<br>23, 2021  | 1,746,789        | 1,746,789             | \$1.00                        | 1,746,789                                                                      |
| TMD.WT.H         | March 31,<br>2016     | March 31,<br>2021     | 15,054,940       | 15,054,940            | \$1.20                        | 18,065,928                                                                     |
|                  | April<br>14, 2016     | April<br>14, 2021     | 2,258,241        | 2,258,241             | \$1.20                        | 2,709,889                                                                      |
| TMD.WT.I         | September<br>20, 2016 | September<br>20, 2021 | 17,083,333       | 17,083,333            | \$0.75                        | 12,812,500                                                                     |
|                  | October<br>27, 2016   | October<br>27, 2021   | 2,030,000        | 2,030,000             | \$0.75                        | 1,522,500                                                                      |

- 26 -

| Ticker<br>Symbol | Issue<br>Date        | Expiry<br>Date       | Number<br>Issued | Number<br>Outstanding | Exercise<br>Price<br>(CDN \$) | Potential<br>Proceeds of<br>exercise of<br>Warrants<br>(CDN \$) <sup>(1)</sup> |
|------------------|----------------------|----------------------|------------------|-----------------------|-------------------------------|--------------------------------------------------------------------------------|
| Not Listed       | March 16, 2017       | March<br>16, 2019    | 10,733,600       | 4,074,708             | \$0.40                        | 1,629,883                                                                      |
| Not Listed       | March 16, 2017       | March 16, 2021       | 10,733,600       | 10,657,600            | \$0.50                        | 5,328,800                                                                      |
| Not Listed       | June<br>29, 2017     | June<br>29, 2022     | 48,388,637       | 2,469,305             | \$0.20                        | 493,861                                                                        |
| Not Listed       | July<br>21, 2017     | June<br>29, 2022     | 11,117,000       | 11,117,000            | \$0.20                        | 2,223,400                                                                      |
| Not Listed       | August<br>24, 2017   | August<br>24, 2022   | 16,892,000       | 16,892,000            | \$0.20                        | 3,378,400                                                                      |
| Not Listed       | December<br>05, 2017 | December<br>05, 2022 | 46,000,000       | 46,000,000            | \$0.60                        | 27,600,000                                                                     |
| TOTAL            |                      |                      | 206,981,916      | 153,257,634           |                               | 106,908,161                                                                    |

Notes:

1. Assumes that Warrants are exercised in full. There is no assurance any Warrants will be exercised.

All of the Warrants referenced in the table above are governed by warrant indentures (the "Warrant Indentures") entered into between the Company and Computershare Limited (or its predecessor, Olympia Transfer Services Inc.), as warrant agent thereunder, and/or warrant certificates, as the case may be, dated the date of issue of each series of warrants. A copy of each Warrant Indenture can be found on SEDAR at www.sedar.com.

The Company also has outstanding stock options ("Options") granted to directors, officers and employees of the Company. At December 31, 2017, there were 17,748,269 Options outstanding. Each Option entitles its holder to purchase one common share of the Company at an exercise price determined by the board of directors. The terms of each Option including the number of Options granted, the exercise price, the expiry date and any vesting provisions were determined by the Company's board of directors at the time of the grant of each Option. Please see the Company's notes to the annual audited financial statements for the 2017 fiscal year, which provides more detailed disclosure on the Options outstanding and the terms thereof.

## MARKET FOR SECURITIES

All references to currency in this section under the heading, "Market for Securities" is in Canadian dollars.

### Summary of Monthly Trading - Common Shares

The Company's common shares are listed for trading in Canada on the TSX under the symbol "TMD". The common shares of the Company also trade on the international tier of the OTCQB market in the United States under the ticker symbol "TITXF".

The following table shows the close, high and low trading prices and the volume of shares traded for the common shares of the Company on the TSX for each month in 2017.

| Month<br>(2017) | High    | Low     | Close    | Volume     |
|-----------------|---------|---------|----------|------------|
| December        | \$0.42  | \$0.34  | \$0.375  | 13,106,330 |
| November        | \$0.68  | \$0.395 | \$0.305  | 40,486,628 |
| October         | \$0.63  | \$0.27  | \$0.425  | 48,535,559 |
| September       | \$0.36  | \$0.14  | \$0.34   | 56,349,079 |
| August          | \$0.15  | \$0.125 | \$0.66   | 7,259,834  |
| July            | \$0.15  | \$0.125 | \$0.145  | 12,452,454 |
| June            | \$0.37  | \$0.125 | \$0.1375 | 28,819,663 |
| May             | \$0.47  | \$0.335 | \$0.3525 | 4,089,162  |
| April           | \$0.51  | \$0.335 | \$0.45   | 5,030,295  |
| March           | \$0.485 | \$0.28  | \$0.35   | 12,990,166 |
| February        | \$0.52  | \$0.46  | \$0.465  | 2,568,262  |
| January         | \$0.72  | \$0.33  | \$0.50   | 11,567,339 |

# Summary of Monthly Trading – March 2018 Warrants

The Company's March 2018 Warrants were listed for trading on the TSX as of March 25, 2013 under the symbol "TMD.WT.C". The following table shows the close, high and low trading prices and the volume of warrants traded for the March 2018 Warrants of the Company on the TSX for each month in 2017.

| Month<br>(2017) | High    | Low     | Close   | Volume  |
|-----------------|---------|---------|---------|---------|
| December        | \$0.02  | \$0.005 | \$0.005 | 95,000  |
| November        | \$0.025 | \$0.025 | \$0.025 | 19,000  |
| October         | \$0.03  | \$0.005 | \$0.03  | 341,996 |
| September       | \$0.02  | \$0.005 | \$0.005 | 133,400 |
| August          | \$0.015 | \$0.005 | \$0.01  | 23,500  |
| July            | \$0.015 | \$0.005 | \$0.01  | 137,660 |
| June            | \$0.045 | \$0.01  | \$0.02  | 89,660  |
| May             | \$0.07  | \$0.045 | \$0.07  | 11,500  |
| April           | \$0.06  | \$0.035 | \$0.055 | 25,000  |
| March           | \$0.06  | \$0.01  | \$0.03  | 43,000  |
| February        | -       | -       | -       | -       |
| January         | \$0.06  | \$0.05  | \$0.06  | 21,500  |

## Summary of Monthly Trading – February 2017 Warrants

The Company's February 2017 Warrants were listed for trading on the TSX-V as of March 28, 2014 and on the TSX as of September 30, 2014, under the symbol "TMD.WT.D". The following table shows the close, high and low trading prices and the volume of warrants traded for the February 2017 Warrants of the Company for each month in 2017.

| Month<br>(2017) | High    | Low     | Close   | Volume |
|-----------------|---------|---------|---------|--------|
| February        | -       | -       | -       | -      |
| January         | \$0.005 | \$0.005 | \$0.005 | 5,000  |

### Summary of Monthly Trading – April 2017 Warrants

The Company's April 2017 Warrants were listed for trading on the TSX-V as of May 7, 2014 and on the TSX as of September 30, 2014, under the symbol "TMD.WT.E". The following table shows the close, high and low trading prices and the volume of warrants traded for the April 2017 Warrants of the Company for each month in 2017.

| Month<br>(2017) | High | Low | Close | Volume |
|-----------------|------|-----|-------|--------|
| April           | -    | -   | -     | -      |
| March           | -    | -   | -     | -      |
| February        | -    | -   | -     | -      |
| January         | -    | -   | -     | -      |

## Summary of Monthly Trading – November 2020 Warrants

The Company's November 2020 Warrants were listed for trading on the TSX as of November 17, 2015, under the symbol "TMD.WT.F". The following table shows the close, high and low trading prices and the volume of warrants traded for the November 2020 Warrants of the Company for each month in 2017.

| Month<br>(2017) | High    | Low     | Close   | Volume  |
|-----------------|---------|---------|---------|---------|
| December        | \$0.065 | \$0.02  | \$0.065 | 304,870 |
| November        | \$0.03  | \$0.01  | \$0.01  | 13,400  |
| October         | -       | -       | -       | -       |
| September       | \$0.02  | \$0.005 | \$0.02  | 11,000  |
| August          | \$0.01  | \$0.005 | \$0.005 | 4,500   |
| July            | \$0.02  | \$0.01  | \$0.01  | 10,000  |
| June            | \$0.035 | \$0.02  | \$0.02  | 48,000  |
| May             | \$0.025 | \$0.015 | \$0.015 | 48,750  |
| April           | \$0.025 | \$0.025 | \$0.025 | 5,000   |
| March           | \$0.035 | \$0.035 | \$0.035 | 4,000   |
| February        | \$0.035 | \$0.035 | \$0.035 | 12,000  |
| January         | \$0.06  | \$0.015 | \$0.06  | 3,575   |

### Summary of Monthly Trading – February 2021 Warrants

The Company's February 2021 Warrants were listed for trading on the TSX as of February 17, 2016, under the symbol "TMD.WT.G". The following table shows the close, high and low trading prices and the volume of warrants traded for the February 2021Warrants of the Company for each month in 2017.

| Month<br>(2017) | High    | Low     | Close   | Volume    |
|-----------------|---------|---------|---------|-----------|
| December        | \$0.115 | \$0.04  | \$0.115 | 105,800   |
| November        | \$0.095 | \$0.04  | \$0.04  | 67,250    |
| October         | \$0.095 | \$0.045 | \$0.075 | 283,383   |
| September       | \$0.065 | \$0.01  | \$0.04  | 1,099,257 |
| August          | -       | -       | -       | -         |
| July            | -       | -       | -       | -         |
| June            | \$0.035 | \$0.02  | \$0.02  | 274,700   |
| May             | \$0.05  | \$0.03  | \$0.03  | 119,556   |
| April           | \$0.055 | \$0.05  | \$0.05  | 36,611    |
| March           | \$0.07  | \$0.05  | \$0.05  | 197,211   |
| February        | \$0.12  | \$0.115 | \$0.12  | 20,000    |
| January         | \$0.095 | \$0.06  | \$0.095 | 264.700   |

- 29 -

## Summary of Monthly Trading - March 2021 Warrants

The Company's March 2021 Warrants were listed for trading on the TSX as of March 31, 2016, under the symbol "TMD.WT.H". The following table shows the close, high and low trading prices and the volume of warrants traded for the March 2021Warrants of the Company for each month in 2017.

| Month<br>(2017) | High    | Low     | Close   | Volume  |
|-----------------|---------|---------|---------|---------|
| December        | \$0.095 | \$0.05  | \$0.09  | 466,109 |
| November        | \$0.06  | \$0.025 | \$0.035 | 114,645 |
| October         | \$0.05  | \$0.015 | \$0.03  | 349,307 |
| September       | \$0.04  | \$0.01  | \$0.04  | 262,500 |
| August          | -       | -       | -       | -       |
| July            | \$0.015 | \$0.015 | \$0.015 | 19,000  |
| June            | \$0.035 | \$0.02  | \$0.02  | 111,500 |
| May             | \$0.045 | \$0.03  | \$0.04  | 106,000 |
| April           | \$0.05  | \$0.04  | \$0.045 | 76,500  |
| March           | \$0.05  | \$0.03  | \$0.04  | 79,000  |
| February        | \$0.075 | \$0.05  | \$0.075 | 43,900  |
| January         | \$0.08  | \$0.05  | \$0.08  | 133,000 |

## Summary of Monthly Trading – September 2021 Warrants

The Company's September 2021 Warrants were listed for trading on the TSX as of September 20, 2016, under the symbol "TMD.WT.I". The following table shows the close, high and low trading prices and the volume of warrants traded for the September 2021Warrants of the Company for each month in 2017.

| Month<br>(2017) |         |         | Close   | Volume    |  |
|-----------------|---------|---------|---------|-----------|--|
| December        | \$0.12  | \$0.10  | \$0.12  | 50,000    |  |
| November        | \$0.155 | \$0.055 | \$0.10  | 565,700   |  |
| October         | \$0.14  | \$0.03  | \$0.08  | 752,500   |  |
| September       | \$0.065 | \$0.015 | \$0.05  | 397,480   |  |
| August          | \$0.02  | \$0.015 | \$0.015 | 40,000    |  |
| July            | \$0.025 | \$0.02  | \$0.02  | 24,500    |  |
| June            | \$0.06  | \$0.015 | \$0.025 | 420,000   |  |
| May             | \$0.085 | \$0.05  | \$0.06  | 397,900   |  |
| April           | \$0.13  | \$0.095 | \$0.095 | 157,500   |  |
| March           | \$0.10  | \$0.06  | \$0.09  | 338,500   |  |
| February        | \$0.12  | \$0.10  | \$0.11  | 348,000   |  |
| January         | \$0.15  | \$0.07  | \$0.15  | 1,528,500 |  |

Please also see the table on Page 26 which includes information regarding Warrants issued by the Company during 2017 that are not listed for trading or quoted on a marketplace and denoted as "Not Listed" in that table.

## ESCROWED SECURITIES

As of December 31, 2017, there were no common shares of the Company held, to the Company's knowledge, in escrow or that were subject to a contractual restriction on transfer.

## - 30 -

# DIRECTORS AND OFFICERS

The following sets out details respecting the directors and executive officers of the Company, as of the date of this Annual Information Form. The names, the municipalities of residence, the positions held by each in Titan and the principal occupation for the past five years of the directors and executive officers of the Company are as follows:

| Name and<br>Municipality of<br>Residence                | Offices Held                                             | Director Since | Principal Occupation(s)<br>During the Five-Year Period Ending December 31, 2017                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|---------------------------------------------------------|----------------------------------------------------------|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| David J. McNally<br>Salt Lake City, Utah                | President,<br>Chief Executive Officer<br>and<br>Director | 2017           | Chief Executive Officer and President of Titan from January 3, 2017 and January 9, 2017 respectively. Prior thereto, from October 2009 to August 2016, Mr. McNally served as the founder, President, Chief Executive Officer and Chairman of the Board of Directors of Domain Surgical, Inc., a privately held developer, manufacturer and marketer of a new advanced energy surgery platform for precise cutting and coagulation of soft tissue, and reliable vessel sealing in open and laparoscopic procedures.                                      |
| Stephen Randall<br>Toronto, Ontario                     | Chief Financial Officer,<br>Secretary and<br>Director    | 2017           | Chief Financial Officer of Titan since March 2010. Prior thereto, Mr. Randall served in senior financial roles with private, publicly-traded and start-up companies in the technology sector. Mr. Randall holds the Canadian CPA and CGA designations.                                                                                                                                                                                                                                                                                                  |
| John E. Barker <sup>(1)(2)</sup><br>Burlington, Ontario | Director                                                 | 2009           | Corporate director. Previously served as Senior Vice President of Finance, CFO and in other senior executive positions at Zenon Environmental Inc. from 2000 to 2006.                                                                                                                                                                                                                                                                                                                                                                                   |
| John E. Schellhorn(1)(2)<br>Portsmouth, New Hampshire   | Director                                                 | 2017           | Mr. Schellhorn is a 32-year veteran of the medical technology industry, where he has held various senior management positions in the US, Canada and Asia/Pacific. He is currently President and CEO of Global Kinetics Corporation, a Melbourne, Australia headquartered company commercializing the world's first objective measurement technology for patients with Parkinson's Disease. From 2012 to 2016, he was President and CEO of Monteris Medical Inc., a Canadian neurosurgery company which employed the world's first MRI compatible robot. |

- 31 -

| Name and<br>Municipality of<br>Residence      | Offices Held | Director Since | Principal Occupation(s)<br>During the Five-Year Period Ending December 31, 2017                                                                                       |
|-----------------------------------------------|--------------|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Dr. Bruce Wolff(1)(2)<br>Rochester, Minnesota | Director     | 2014           | Surgeon, Mayo Clinic since 1982; and Professor of Surgery, Mayo Clinic College of Medicine and Emeritus Chair of the Division of Colon & Rectal Surgery, Mayo Clinic. |

Notes:

(1) Member of Audit Committee of the Company.

(2) Member of Compensation Committee of the Company.

None of the directors or executive officers of the Company is, at the date hereof, or has within 10 years before the date hereof, been a director, chief executive officer or chief financial officer of any other issuer that (a) was the subject of a cease trade, an order similar to a cease trade order or an order that denied the issuer access to any statutory exemptions under securities legislation, that was in effect for a period of more than 30 consecutive days (an "Order"), that, while that person was acting in the capacity as a director, chief executive officer or chief financial officer, or (b) was subject to an order that was issued after that person ceased to be a director, chief executive officer or chief financial officer.

None of the directors or executive officers of the Company (a) is, at the date hereof, or has within 10 years before the date hereof, been a director or executive officer of any other issuer that, while that person was acting in that capacity, or within a year of that person ceasing to act in that capacity, became bankrupt, made a proposal under any legislation relating to bankruptcy or insolvency or was subject to or instituted any proceedings, arrangement or compromise with creditors or had a receiver, manager or trustee appointed to hold its assets, or (b) has, within 10 years before the date hereof, become bankrupt, made a proposal under any legislation relating to bankruptcy or insolvency or insolvency or was subject to or instituted any proceedings, arrangement or compromise with creditors or had a receiver, manager or trustee appointed to hold its assets

None of the directors or executive officers of the Company has been subject to (a) any penalties or sanctions imposed by a court relating to securities legislation or by a securities regulatory authority, or (b) any other penalties or sanctions imposed by a court or regulatory body that would likely be considered important to a reasonable investor in making an investment decision.

The term of each director will expire at the next annual meeting of the Company. As at December 31, 2017, the then directors and executive officers of the Company, as a group, beneficially owned, directly or indirectly, or exercised control or direction over 4,259,364 common shares of the Company, representing approximately 1.12% of the Company's outstanding common shares. The information as to securities beneficially owned or over which control or direction is exercised is not within the knowledge of the Company and has been furnished by the directors and executive officers individually. There are no material conflicts of interest among any of the directors or executive officers and the Company, other than any potential conflicts as disclosed above. See "*Risk Factors –Conflicts of Interest*".

- 32 -

## AUDIT COMMITTEE

### Audit Committee's Charter

See Schedule "A".

### Composition of the Audit Committee

As of the date of this Annual Information Form, the table below sets out the members of the Audit Committee and states whether they are financially literate and/or independent.

| Director           | Independent | Financially Literate |
|--------------------|-------------|----------------------|
| John E. Barker     | Yes         | Yes                  |
| John E. Schellhorn | Yes         | Yes                  |
| Dr. Bruce Wolff    | Yes         | Yes                  |

John E. Barker has been a senior officer and a director of publicly traded companies and a business executive for a number of years. In these positions, he has been responsible for receiving financial information relating to the entities of which he was a director. He has an understanding of financial statements and how those statements are used to assess the financial position of a company and its operating results. Each member of the Audit Committee also has a significant understanding of the business in which the Company is engaged and has an appreciation for the relevant accounting principles for the Company's business.

#### **Pre-Approval Policies and Procedures**

The Audit Committee has adopted a pre-approval policy with respect to permitted non-audit services proposed to be provided by the external auditor as disclosed in paragraph 3(a)(iv) of the Audit Committee's Charter (Schedule "A").

#### **External Auditor Service Fees**

The table below sets out all fees billed by the Company's external auditor in respect of the last two financial years.

| Financial Year Ended | Audit Fees <sup>(1)</sup> | Audit-Related Fees <sup>(2)</sup> | Tax Fees <sup>(3)</sup> | All Other Fees <sup>(4)</sup> |
|----------------------|---------------------------|-----------------------------------|-------------------------|-------------------------------|
| December 31, 2017    | \$47,695                  | \$22,430                          | -                       | \$126,941                     |
| December 31, 2016    | \$42,083                  | \$25,774                          | \$1,512                 | \$114,249                     |

Notes:

 "Audit-Related Fees" are fees not included in Audit Fees that are billed by the auditor for assurance and related services that are reasonably related to performing the audit or reviewing the Company's interim financial statements.

3. "Tax Fees" are fees billed by the auditor for professional services rendered for tax compliance, tax advice and tax planning.

4. "All Other Fees" are fees billed by the auditor for products and services not included in the previous categories. These fees relate primarily to the work performed by the Auditors in conjunction with the public offerings completed by Titan in 2016 and 2017.

- 33 -

<sup>1. &</sup>quot;Audit Fees" are fees billed by the Company's external auditor for services provided in auditing the Company's financial statements for the financial year.

#### PROMOTER

No person is or has been within the two years immediately preceding the date hereof, a promoter of the Company.

#### LEGAL PROCEEDINGS AND REGULATORY ACTIONS

There are no legal proceedings to which the Company is or was a party to, or that any of its property is or was the subject of, during the year ended December 31, 2017, and the Company is not aware of any such proceedings that are contemplated. No penalties or sanctions were imposed against the Company by a court relating to securities legislation or by a securities regulatory authority during the year ended December 31, 2017, nor has the Company entered into a settlement agreement with a securities regulatory authority, or been subject to any other penalties or sanctions imposed by a court or regulatory body that would likely be considered important to a reasonable investor in making an investment decision.

## INTEREST OF MANAGEMENT AND OTHERS IN MATERIAL TRANSACTIONS

Except as disclosed in this Annual Information Form, none of the directors or executive officers of the Company, or any person or company that beneficially owns, or controls or directs, directly or indirectly, more than 10% of any class or series of the Company's outstanding voting securities, or any associate or affiliate of any of the foregoing persons or companies, has or has had any material interest, direct or indirect, in any transaction within the three most recently completed financial years or during the current financial year that has materially affected or is reasonably expected to materially affect the Company.

### TRANSFER AGENT AND REGISTRAR

Computershare Limited is the Company's registrar and transfer agent. The register of the transfers of the common shares of the Company are located at 100 University Avenue, 8<sup>th</sup> Floor, Toronto, Ontario M5J 2Y1.

### MATERIAL CONTRACTS

The Company enters into a variety of contracts in the normal course of business. Material contracts entered into since January 1, 2017, or before January 1, 2017, but still in effect and that are or were required to be filed under Section 12.2 of National Instrument 51-102 *Continuous Disclosure Obligations* include the Warrant Indentures described under "*Capital Structure*".

#### EXPERTS

The auditors of the Company are BDO Canada LLP, Charted Accountants, Licensed Public Accountants, who have prepared an independent auditors' report in respect of the Company's financial statements with accompanying notes as at and for the year ended December 31, 2017. BDO Canada LLP is independent in accordance with the Rules of Professional Conduct as outlined by the Institute of Chartered Professional Accountants of Ontario.

## ADDITIONAL INFORMATION

Additional information regarding the Company's corporate governance practices, including the terms of reference for the Company's board of directors and the Company's board committees, is contained in the management information circular of the Company dated May 18, 2017. This document can be found on SEDAR at www.sedar.com.

Additional information relating to the Company may be found on SEDAR at www.sedar.com and on the Company's web site at www.titanmedicalinc.com.

Upon request to the Company's registered office at 170 University Avenue, Suite 1000, Toronto, Ontario M5H 3B3, the Company will provide any person with a copy of this annual information form and any other documents that are incorporated by reference into a preliminary short form prospectus or short form prospectus filed in respect of a distribution of securities of the Company.

A copy of any of these documents may be obtained without charge at any time when a preliminary short form prospectus has been filed in respect of a distribution of any securities of the Company or any securities of the Company are in the course of a distribution pursuant to a short form prospectus. At any other time, any document referred to above may be obtained by security holders of the Company without charge and by any other person upon payment of a reasonable charge.

Additional information including directors' and executive officers' remuneration and indebtedness, principal holders of the Company's securities and options to purchase securities, where applicable, is contained in the management information circular of the Company dated May 18, 2017. Additional financial information is provided in the Company's financial statements and management's discussion and analysis for the year ended December 31, 2017.

### SCHEDULE "A"

### TITAN MEDICAL INC.

## AUDIT COMMITTEE CHARTER

#### Purpose

The Audit Committee (the "Audit Committee") or the "Committee") is a committee of the board of directors (the "Board of Directors" or the "Board") of Titan Medical Inc. (the "Company"). Its primary function is to assist the Board in fulfilling its oversight responsibilities by evaluating and making recommendations to the Board as appropriate with respect to:

- financial reporting;
- the external auditors, including performance, qualifications, independence, and their audit of the Company's financial statements;
- internal controls and disclosure controls;
- financial risk management;
- the Company's Code of Business Conduct and Ethics (the "Code"); and
- related party transactions.

The Audit Committee will also have authority to review and, in its discretion, approve certain matters, in accordance with and within the limitations prescribed by this Charter.

The Audit Committee's primary function is to assist the Board of Directors in fulfilling its responsibilities. It is, however, the Company's management which is responsible for preparing the Company's financial statements and it is the Company's external auditors who are responsible for auditing those financial statements.

### **Composition and Member Qualification**

The Committee shall, subject to applicable exemptions available under National Instrument 52-110 - Audit Committees ("NI 52-110"), Rule 10A-3 of the United States Securities Exchange Act of 1934, as amended("Rule 10A-3"), and Rule 5605 of the NASDAQ Stock Market Rules ("Rule 5605"), be comprised of at least three directors, each of whom shall be an independent director of the Company (as defined below) and pursuant to the requirements of Rule 10A-3 and Rule 5605. Pursuant to NI 52-110 (as implemented by the Canadian Securities Administrators and as amended from time to time), a director is considered to be "independent" if he or she has no direct or indirect "material relationship" with the Company which is a relationship that could, in the view of the Board of Directors, be reasonably expected to interfere with the exercise of a director's independent judgment. Notwithstanding the foregoing, a director shall be considered to have a "material relationship" with the Company if he or she falls in one of the categories listed in Schedule A-1 attached hereto.

Subject to an applicable exemption available under NI 52-110, all members of the Audit Committee must, to the satisfaction of the Board of Directors, be "financially literate" within the meaning of NI 52-110. NI 52-110 provides that a director will be considered "financially literate" if he or she has the ability to read and understand a set of financial statements that present a breadth and level of complexity of accounting issues that are generally comparable to the breadth and complexity of the issues that can reasonably be expected to be raised by the Company's financial statements.

At least one member shall meet the requirements of an Audit Committee Financial Expert as set forth in item 407 of Regulation S-K.

Each member will have, to the satisfaction of the Board, sufficient skills and/or experience as are relevant and will be of contribution to the carrying out of the mandate of the Committee.

#### **Appointment and Term of Office**

Each member of the Committee and the Chair of the Committee shall be appointed from and by the Board of Directors, on the recommendation of the Corporate Governance and Nominating Committee, at the time of each annual meeting of the shareholders of the Company, and shall hold office until the next annual meeting.

Any member of the Committee may be removed or replaced at any time by the Board and shall cease to be a member of the Committee upon ceasing to be a director.

The Board may fill vacancies on the Committee by appointment from among its members. If and whenever a vacancy shall exist on the Committee, the remaining members may exercise all their powers so long as a quorum remains in office.

### Meetings

The Committee is to meet at least four times annually (and more frequently if circumstances require). The Audit Committee is to meet prior to filing the quarterly financial statements in order to review and discuss the unaudited financial results for the preceding quarter and the related management's discussion and analysis ("MD&A") and is to meet prior to filing the annual audited financial statements and MD&A in order to review and discuss the audited financial results for the year and related MD&A.

The Audit Committee will meet periodically with management and the external auditors in separate sessions to discuss any matters that the Audit Committee or each of these groups believe should be discussed privately. The Audit Committee shall meet with the external auditors in a separate session at each regularly scheduled meeting of the Committee at which such auditors are present.

A quorum for the transaction of business at any meeting of the Committee is the presence in person or via tele-conference or video-conference of a simple majority of the total number of members of the Committee. If within one hour of the time appointed for a meeting of the Committee, a quorum is not present, the meeting shall stand adjourned to the same hour on the second business day following the date of such meeting at the same place. If at the adjourned meeting a quorum as hereinbefore specified is not present within one hour of the time appointed for such adjourned meeting, the quorum for the adjourned meeting will consist of the members then present.

Meetings of the Committee shall be held from time to time and at such place as the Committee or the Chair of the Committee may determine, within or outside Canada, upon not less than 48 hours' prior notice to each of the members.

Meetings of the Committee may be held without 48 hours' prior notice if all of the members entitled to vote at such meeting who do not attend, waive notice of the meeting and, for the purpose of such meeting, the presence of a member at such meeting shall constitute waiver on his or her part. Any member of the Committee or the Chairman of the Board shall be entitled to request that the Chair of the Committee call a meeting. A notice of a meeting of the Committee may be given verbally, in writing or by telephone, fax or other means of communication, and need not specify the purpose of the meeting. Members of the Committee may attend meetings of the Committee by tele-conference or video-conference.

- 3 -

The Committee shall keep minutes of its meetings which shall be submitted to the Board of Directors. The Committee may, from time to time, appoint any person who need not be a member, to act as secretary at any meeting.

All decisions of the Committee will require the vote of a majority of its members present at a meeting at which a quorum is present. Actions of the Committee may be taken by an instrument or instruments in writing signed by all of the members of the Committee, and such actions shall be effective as though they had been decided by a majority of votes cast at a meeting of the Committee called for such purpose. Such instruments in writing may be signed in counterparts each of which shall be deemed to be an original and all originals together shall be deemed to be one and the same instrument.

The Committee shall meet in camera, without management, at each meeting of the Committee, and otherwise as considered appropriate by the members of the Committee. Any member of the Committee may move the Committee in camera at any time during the course of a meeting, and a record of any decisions made in camera shall be maintained by the Chair of the Committee.

## Duties and Responsibilities

To fulfill its duties and responsibilities, the Audit Committee shall evaluate and make recommendations to the Board, or approve, as appropriate, with respect to the following matters:

- 1. General Responsibilities
  - a. Create and maintain a Committee plan for the year.
  - b. Review and assess this Charter at least annually, prepare revisions to its provisions as conditions dictate, and refer its assessment and any proposed revisions to the Corporate Governance and Nominating Committee or the Board.
  - c. Report and make recommendations p er io d ically to the Board on the matters covered by this Charter.
  - d. Perform any other activities consistent with this Charter, the Company's Articles and By- Laws and governing law, as the Audit Committee or the Board of Directors deems necessary or appropriate.
- 2. Financial Reporting
  - a. Recommend to the Board for approval:
    - i. the Company's quarterly and annual financial statements and related MD&A;
    - ii. all other financial statements that require approval by the Board, including financial statements for use in prospectuses or other offering or public disclosure documents and financial statements required by regulatory authorities; and
    - iii. financial information for use in press releases, including annual and interim profit or loss press releases, prior to their publication and/or filing with any governmental body and/or release.

- 4 -
- b. Overseeing the work of the external auditor engaged for the purpose of preparing or issuing an auditor's report or performing other audit, review or attest services for the Company, including the resolution of disagreements between management and the external auditor regarding financial reporting.
- c. Before the release of financial statements and related disclosures to the public, obtain confirmation f r o m the CEO and CFO as to the matters addressed in the certifications required by the securities regulatory authorities.
- d. Review any litigation, claim or other contingency that could have a material effect on the financial statements.
- e. Review the external auditors' judgments about the quality and appropriateness, not just the acceptability, of the Company's accounting principles and financial disclosure practices, as applied in its financial reporting.
- f. Review the status of significant accounting estimates and judgments and special issues (e.g., major transactions, changes in the selection or application of accounting policies, off- balance sheet items, effect of regulatory and financial initiatives).
- g. Review and approve, if appropriate, major changes to the Company's accounting principles and practices as suggested by management with the concurrence of the external auditors.
- 3. External Auditor
  - a. Responsible for (i) the selection of the external auditors, considering independence and effectiveness; and (ii) the fees and other compensation to be paid to the external auditors.
  - b. Require, in accordance with applicable law, that the external auditors report directly to the Audit Committee.
  - c. Pre-approve all audit and non-audit services to be provided to the Company or its subsidiaries by the external auditors in a manner consistent with NI 52-110.
  - d. Oversee the work and review the performance of the external auditors and approve any proposed discharge of the external auditors when circumstances warrant.
  - e. Monitor the relationship between management and the external auditors, including reviewing any management letters or other reports of the external auditors.
  - f. Discuss with the external auditor any (i) difference of opinion with management on material auditing or accounting issues, and (ii) any audit problems or difficulties experienced by the external audit in performing the audit. Where there are significant unsettled issues, the Audit Committee is to assist in arriving at an agreed course of action for the resolution of such matters.
  - g. Periodically consult with the external auditors without management present about significant risks or exposures, internal controls and other steps that management has taken to control such risks, and the completeness and accuracy of the Company's financial statements. Particular emphasis should be given to the adequacy of internal controls to expose any payments, transactions, or procedures that might be deemed illegal or otherwise improper.

- h. Review and discuss, on an annual basis, with the external auditors all significant relationships they have with the Company to determine their independence.
- i. Review and approve the Company's hiring policies regarding partners, employees and former partners and employees of the Company's external auditors.
- j. Consider any matter required to be communicated to the Audit Committee by the external auditors under applicable generally accepted auditing standards, applicable law and listing standards, including the auditor's report to the Audit Committee (and management's response thereto).
- 4. Monitoring Financial Matters, Internal Controls, Management Systems and Disclosure Controls
  - a. Oversee management's review of the adequacy of the Company's accounting and financial reporting systems, including with respect to the integrity and quality of the Company's financial statements and other financial information.
  - b. Oversee management's review of the adequacy of the Company's internal controls and management systems to safeguard assets from loss and unauthorized use and to verify the accuracy of the financial records.
  - c. In consultation with the Corporate Governance and Nominating Committee, oversee management's disclosure controls and procedures regarding the Company's financial information to confirm that the Company's financial information that is required to be disclosed under applicable law or stock exchange rules is disclosed.
  - d. Review any special audit steps adopted in light of material control deficiencies.
- 5. Risk Management
  - a. Review management's assessment and management of financial risk, including insurance coverage, and obtain the external auditors' opinion of management's assessment of significant financial risks facing the Company and how effectively such risks are being managed or controlled.
- 6. Code of Business Conduct and Ethics
  - a. Recommend to the Board any significant changes to the Code, monitor compliance with the Code and ensure that management has established a system to enforce the Code. Review appropriateness of actions taken to ensure compliance with the Code and review the results of confirmations and violations thereof.
  - b. Oversee procedures in the Code for (i) the receipt, retention and treatment of complaints received by the Company regarding accounting, internal controls or auditing matters, and (ii) the confidential, anonymous submission by employees of concerns regarding questionable accounting or auditing matters.
  - c. Approve any waiver from compliance with the Code for directors and executive officers, promptly report any such waiver to the Board, and ensure appropriate disclosure of any such waiver.

Each of which shall be conducted with the Corporate Governance and Nominating Committee.

- 7. Related Party Transactions
  - a. Review and pre-approve all proposed related party transactions and situations involving a potential or actual conflict of interest involving a director, member of executive management, or affiliate, that are not required to be dealt with by an "independent committee" pursuant to securities laws, other than routine transactions and situations arising in the ordinary course of business, consistent with past practice.
- 8. Financial Legal Compliance
  - a. Review management's monitoring of the Company's systems in place to ensure that the Company's financial statements, reports and other financial information disseminated to governmental organizations and the public satisfy legal requirements.
  - b. Review with legal counsel any legal matters that could have a significant effect on the Company's financial statements.
  - c. Review with legal counsel the Company's compliance with applicable law and inquiries received from regulators and governmental agencies to the extent they may have a material impact on the financial position of the Company.
- 9. Expense Accounts and Management Perquisites
  - a. Recommend to the Board policies and procedures with respect to directors' and executive management's expense accounts and management perquisites and benefits, including their use of corporate assets and expenditures related to executive travel and entertainment, and review the results of the procedures performed in these areas by the external auditors.
- 10. Succession Planning
  - a. Consult with the Compensation Committee and Corporate Governance and Nominating Committee on succession planning for the directors and executive management.
- 11. Disclosure of Audit Committee Function
  - a. Oversee the preparation of, and recommend to the Board, the disclosure of the Audit Committee's composition and responsibilities and how they were discharged as required to be published annually in the Company's management information circular or annual information form pursuant to applicable law (including NI 52-110).
  - b. Approve any other significant information relating to matters within this Charter contained in the Company's disclosure documents.
- 12. Legal Compliance
  - a. Oversee management's compliance with laws with respect to the audit function, and recommend to the Board any changes to the Company's practices in these areas.
  - b. Satisfy itself that management monitors significant trends in the area of financial reporting, and evaluates their impact on the Company.

The foregoing list is not exhaustive. The Audit Committee may, in addition, perform such other functions as may be necessary or appropriate for the performance of its responsibilities and duties.

#### **Responsibilities of Committee Chair**

The primary responsibility of the Chair of the Audit Committee is to be responsible for the management and effective performance of the Committee and provide leadership to the Committee in fulfilling this Charter and any other matters delegated to it by the Board. To that end, the Committee Chair's duties and responsibilities shall include:

- a. Working with the Board Chair, the Chief Executive Officer and the Corporate Secretary to establish the frequency of Committee meetings and the agendas for such meetings.
- b. Providing leadership to the Committee and presiding over Committee meetings.
- c. Facilitating the flow of in for mation to and from the Committee e and fostering an environment in which the Committee members may ask questions and express their viewpoints.
- d. Reporting to the Board with respect to the significant activities of the Committee and any recommendations made by the Committee.
- e. Taking such other steps as are reasonably required to ensure that the Committee carries out this Charter.

#### **Other Organizational Matters**

- 13. The members and the Chair of the Committee shall be entitled to receive remuneration for acting in such capacity as the Board may from time to time determine.
  - a. The Committee shall have the resources and authority appropriate to discharge its duties and responsibilities, including the authority to:
    - i. engage, select, retain, terminate, set and approve the fees and other compensation and other retention terms of special or independent counsel, accountants or other advisors, as it deems appropriate;
    - ii. obtain appropriate funding to pay, or approve the payment of, such approved fees; At the expense of the Company; and
    - iii. communicate directly with the internal and external auditors.
- 14. The Committee shall have full access to books, records, facilities, and personnel of the Company, as it deems necessary to carry out its duties.
- 15. The Committee's performance shall be evaluated annually, in accordance with a process developed by the Corporate Governance and Nominating Committee and approved by the Board, and results of that evaluation shall be reported to the Corporate Governance and Nominating Committee and to the Board.

#### Schedule A-1

### **Material Relationship**

### I. Material Relationships

- 1. An audit committee member is independent if he or she has no direct or indirect material relationship with the issuer.
- 2. For the purposes of subsection (1), a "material relationship" is a relationship which could, in the view of the issuer's board of directors, be reasonably expected to interfere with the exercise of a member's independent judgement.
- 3. Despite subsection (2), the following individuals are considered to have a material relationship with an issuer:
  - a. an individual who is, or has been within the last three years, an employee or executive officer of the issuer;
  - b. an individual whose immediate family member is, or has been within the last three years, an executive officer of the issuer;
  - c. an individual who:
    - (i) is a partner of a firm that is the issuer's internal or external auditor,
    - (ii) is an employee of that firm, or
    - (iii) was within the last three years a partner or employee of that firm and personally worked on the issuer's audit within that time;
  - d. an individual whose spouse, minor child or stepchild, or child or stepchild who shares a home with the individual:
    - (i) is a partner of a firm that is the issuer's internal or external auditor,
    - (ii) is an employee of that firm and participates in its audit, assurance or tax compliance (but not tax planning) practice, or
    - (iii) was within the last three years a partner or employee of that firm and personally worked on the issuer's audit within that time;
  - e. an individual who, or whose immediate family member, is or has been within the last three years, an executive officer of an entity if any of the issuer's current executive officers serves or served at that same time on the entity's compensation committee; and
  - f. an individual who received, or whose immediate family member who is employed as an executive officer of the issuer received, more than \$75,000 in direct compensation from the issuer during any 12 month period within the last three years.

- 4. Despite subsection (3), an individual will not be considered to have a material relationship with the issuer solely because
  - a. he or she had a relationship identified in subsection (3) if that relationship ended before March 30, 2004; or
  - b. he or she had a relationship identified in subsection (3) by virtue of subsection (8) if that relationship ended before June 30, 2005.
- 5. For the purposes of clauses (3) (c) and (3) (d), a partner does not include a fixed income partner whose interest in the firm that is the internal or external auditor is limited to the receipt of fixed amounts of compensation (including deferred compensation) for prior service with that firm if the compensation is not contingent in any way on continued service.
- 6. For the purposes of clause (3) (t), direct compensation does not include:
  - a. remuneration for acting as a member of the board of directors or of any board committee of the issuer, and
  - b. the receipt of fixed amounts of compensation under a retirement plan (including deferred compensation) for prior service with the issuer if the compensation is not contingent in any way on continued service.
- 7. Despite subsection (3), an individual will not be considered to have a material relationship with the issuer solely because the individual or his or her immediate family member
  - a. has previously acted as an interim chief executive officer of the issuer, or
  - b. acts, or has previously acted, as a chair or vice-chair of the board of directors or of any board committee of the issuer on a part-time basis.
- 8. For the purpose of this section I, an issuer includes a subsidiary entity of the issuer and a parent of the issuer.

## II. Additional Independence Requirements

- 1. Despite any determination made under section I, an individual who
  - a. accepts, directly or indirectly, any consulting, advisory or other compensatory fee from the issuer or any subsidiary entity of the issuer, other than as remuneration for acting in his or her capacity as a member of the board of directors or any board committee, or as a part- time chair or vice-chair of the board or any board committee; or
  - b. is an affiliated entity of the issuer or any of its subsidiary entities,

is considered to have a material relationship with the issuer.

- 2. For the purposes of subsection (1), the indirect acceptance by an individual of any consulting, advisory or other compensatory fee includes acceptance of a fee by
  - a. an individual's spouse, minor child or stepchild, or a child or stepchild who shares the individual's home; or

- b. an entity in which such individual is a partner, member, an officer such as a managing director occupying a comparable position or executive officer, or occupies a similar position (except limited partners, non-managing members and those occupying similar positions who, in each case, have no active role in providing services to the entity) and which provides accounting, consulting, legal, investment banking or financial advisory services to the issuer or any subsidiary entity of the issuer.
- 3. For the purposes of subsection (1), compensatory fees do not include the receipt of fixed amounts of compensation under a retirement plan (including deferred compensation) for prior service with the issuer if the compensation is not contingent in any way on continued service.

Last updated: March 28, 2018

#### FORM 52-109F1 CERTIFICATION OF ANNUAL FILINGS FULL CERTIFICATE

### I, David McNally, President and Chief Executive Officer, Titan Medical Inc., certify the following:

1. *Review:* I have reviewed the AIF, if any, annual financial statements and annual MD&A, including, for greater certainty, all documents and information that are incorporated by reference in the AIF (together, the "annual filings") of **Titan Medical Inc.** (the "issuer") for the financial year ended **December 31, 2017**.

2. No misrepresentations: Based on my knowledge, having exercised reasonable diligence, the annual filings do not contain any untrue statement of a material fact or omit to state a material fact required to be stated or that is necessary to make a statement not misleading in light of the circumstances under which it was made, for the period covered by the annual filings.

3. *Fair presentation:* Based on my knowledge, having exercised reasonable diligence, the annual financial statements together with the other financial information included in the annual filings fairly present in all material respects the financial condition, results of operations and cash flows of the issuer, as of the date of and for the periods presented in the annual filings.

4. *Responsibility:* The issuer's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (DC&P) and internal control over financial reporting (ICFR), as those terms are defined in National Instrument 52-109 *Certification of Disclosure in Issuers' Annual and Interim Filings*, for the issuer.

5. Design: Subject to the limitations, if any, described in paragraphs 5.2 and 5.3, the issuer's other certifying officer(s) and I have, as at the financial year end

(a) designed DC&P, or caused it to be designed under our supervision, to provide reasonable assurance that

(i) material information relating to the issuer is made known to us by others, particularly during the period in which the annual filings are being prepared; and

(ii) information required to be disclosed by the issuer in its annual filings, interim filings or other reports filed or submitted by it under securities legislation is recorded, processed, summarized and reported within the time periods specified in securities legislation; and

(b) designed ICFR, or caused it to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with the issuer's GAAP.

5.1 Control framework: The control framework the issuer's other certifying officer(s) and I used to design the issuer's ICFR is Integrated Framework (COSO).

### 5.2 ICFR – material weakness relating to design: N/A

(a) a description of the material weakness;

### 5.3 Limitation on scope of design: N/A

6. Evaluation: The issuer's other certifying officer(s) and I have

(a) evaluated, or caused to be evaluated under our supervision, the effectiveness of the issuer's DC&P at the financial year end and the issuer has disclosed in its annual MD&A our conclusions about the effectiveness of DC&P at the financial year end based on that evaluation; and

(b) evaluated, or caused to be evaluated under our supervision, the effectiveness of the issuer's ICFR at the financial year end and the issuer has disclosed in its annual MD&A

- (i) our conclusions about the effectiveness of ICFR at the financial year end based on that evaluation; and
- (ii) for each material weakness relating to operation existing at the financial year end
  - (A) a description of the material weakness; N/A
  - (B) the impact of the material weakness on the issuer's financial reporting and its ICFR;N / A and
  - (C) the issuer's current plans, if any, or any actions already undertaken, for remediating the material weakness.N/A

7. *Reporting changes in ICFR*: The issuer has disclosed in its annual MD&A any change in the issuer's ICFR that occurred during the period beginning on January 1, 2016 and ended December 31, 2016 that has materially affected, or is reasonably likely to materially affect, the issuer's ICFR.

8. *Reporting to the issuer's auditors and board of directors or audit committee:* The issuer's other certifying officer(s) and I have disclosed, based on our most recent evaluation of ICFR, to the issuer's auditors, and the board of directors or the audit committee of the board of directors any fraud that involves management or other employees who have a significant role in the issuer's ICFR.

### Date: February 13, 2018

(SIGNED) "David McNally" President and Chief Executive Officer

#### FORM 52-109F1 CERTIFICATION OF ANNUAL FILINGS FULL CERTIFICATE

I, Stephen Randall, Chief Financial Officer, Titan Medical Inc., certify the following:

1. *Review:* I have reviewed the AIF, if any, annual financial statements and annual MD&A, including, for greater certainty, all documents and information that are incorporated by reference in the AIF (together, the "annual filings") of **Titan Medical Inc.** (the "issuer") for the financial year ended **December 31, 2017**.

2. No misrepresentations: Based on my knowledge, having exercised reasonable diligence, the annual filings do not contain any untrue statement of a material fact or omit to state a material fact required to be stated or that is necessary to make a statement not misleading in light of the circumstances under which it was made, for the period covered by the annual filings.

3. *Fair presentation:* Based on my knowledge, having exercised reasonable diligence, the annual financial statements together with the other financial information included in the annual filings fairly present in all material respects the financial condition, results of operations and cash flows of the issuer, as of the date of and for the periods presented in the annual filings.

4. *Responsibility:* The issuer's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (DC&P) and internal control over financial reporting (ICFR), as those terms are defined in National Instrument 52-109 *Certification of Disclosure in Issuers' Annual and Interim Filings*, for the issuer.

5. Design: Subject to the limitations, if any, described in paragraphs 5.2 and 5.3, the issuer's other certifying officer(s) and I have, as at the financial year end

(a) designed DC&P, or caused it to be designed under our supervision, to provide reasonable assurance that

(i) material information relating to the issuer is made known to us by others, particularly during the period in which the annual filings are being prepared; and

(ii) information required to be disclosed by the issuer in its annual filings, interim filings or other reports filed or submitted by it under securities legislation is recorded, processed, summarized and reported within the time periods specified in securities legislation; and

(b) designed ICFR, or caused it to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with the issuer's GAAP.

5.1 Control framework: The control framework the issuer's other certifying officer(s) and I used to design the issuer's ICFR is Integrated Framework (COSO).

### 5.2 ICFR – material weakness relating to design: N/A

5.3 Limitation on scope of design: N/A

6. Evaluation: The issuer's other certifying officer(s) and I have

(a) evaluated, or caused to be evaluated under our supervision, the effectiveness of the issuer's DC&P at the financial year end and the issuer has disclosed in its annual MD&A our conclusions about the effectiveness of DC&P at the financial year end based on that evaluation; and

(b) evaluated, or caused to be evaluated under our supervision, the effectiveness of the issuer's ICFR at the financial year end and the issuer has disclosed in its annual MD&A

- (i) our conclusions about the effectiveness of ICFR at the financial year end based on that evaluation; and
- (ii) for each material weakness relating to operation existing at the financial year end
  - (A) a description of the material weakness; N/A
  - (B) the impact of the material weakness on the issuer's financial reporting and its ICFR;N / A and
  - (C) the issuer's current plans, if any, or any actions already undertaken, for remediating the material weakness N/A

7. *Reporting changes in ICFR:* The issuer has disclosed in its annual MD&A any change in the issuer's ICFR that occurred during the period beginning on**January 1, 2016** and ended December 31, 2016 that has materially affected, or is reasonably likely to materially affect, the issuer's ICFR.

8. *Reporting to the issuer's auditors and board of directors or audit committee:* The issuer's other certifying officer(s) and I have disclosed, based on our most recent evaluation of ICFR, to the issuer's auditors, and the board of directors or the audit committee of the board of directors any fraud that involves management or other employees who have a significant role in the issuer's ICFR.

Date: February 13, 2018

(SIGNED) "Stephen Randall" Chief Financial Officer TITAN MEDICAL.

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## HEALTHCARE INDUSTRY LEADER DAVID J. MCNALLY NAMED CEO OF TITAN MEDICAL INC.

Brings More than 30 Years of Experience Successfully Building Medical Device Companies and Generating Shareholder Returns; Also Named to Titan's Board of Directors

**TORONTO, ON – (Marketwired – January 3, 2017)** – David J. McNally, an executive who has successfully created and developed two medical device companies while generating significant shareholder value, has been appointed Chief Executive Officer and a Director of Titan Medical Inc. (TSX: TMD) (OTCQX: TITXF). Mr. McNally joined Titan on January 1, 2017 and succeeded interim CEO John Barker, who will remain a Director.

"After a very thorough search, which included the consideration of more than a dozen highly qualified candidates, the Board of Directors has selected David to lead Titan during its next stages of development," said Martin Bernholtz, Chairman of the Board. "David brings to Titan an impressive track record of successful medical device commercialization, plus capital markets experience that we identified as key criteria during our search process. We were most impressed with the returns he generated for his shareholders at ZEVEX International, which was sold to Moog, Inc. in 2007, as well as more recently with Domain Surgical, which was merged with OmniGuide, Inc. earlier this year to become a leading franchise in advanced energy. David has demonstrated extraordinary leadership skills with all facets of building innovative medical device companies including clinically-focused product design and development, capital formation, regulatory clearance, and commercialization. He also has direct experience in the highly competitive surgical space, which we considered another key asset. Our board is fully committed to working with David to advance the SPORT Surgical System's development program in an effective and efficient manner. I would also like to commend John Barker for the speed and efficiency he displayed in executing the search leading to David's appointment," Mr. Bernholtz concluded.

"I am thrilled to be joining Titan as the team moves to refine the design and commence the regulatory approval process for the innovative SPORT<sup>TM</sup> Surgical System," said Mr. McNally. "Based on my research during the interviewing process, I've come to the conclusion that SPORT can deliver a unique range of benefits and improved healthcare outcomes to patients, surgeons and hospitals. We are confident that SPORT can produce these advantages at significant cost savings compared to other robotic surgical systems."

Mr. McNally joins Titan after serving as the founder, President, CEO and Chairman of the Board of Domain Surgical, Inc. Based in Salt Lake City, Utah, Domain was founded in 2009 as a developer, manufacturer and marketer of a new advanced energy surgery platform for precise cutting and coagulation of soft tissue, and reliable vessel sealing in open and laparoscopic procedures. In August of 2016, he merged Domain with flexible laser company OmniGuide, Inc. to become the world's premier supplier of surgical systems for tissue preservation.

Prior to Domain, Mr. McNally was co-founder, President, CEO and a Director of ZEVEX International, Inc., a publicly-traded (NASDAQ: ZXVI) medical device technology leader that manufactured and marketed a broad array of products, including minimally invasive surgical devices, sensors, and medical device award-winning fluid delivery systems. Under his leadership, ZEVEX was acquired by Moog, Inc. (NYSE: MOGA, MOGB) in 2007.

In addition to earning a MBA from the University of Utah, Mr. McNally holds a Bachelor of Science degree in Mechanical Engineering from Lafayette College, Easton, PA and is the co-inventor of more than 30 U.S. and international patents associated with ferromagnetic surgical devices and systems, electromagnetic and ultrasonic sensors, and medical fluid delivery systems.

## About Titan Medical Inc.

Titan Medical Inc. is a Canadian public company focused on the design and development of a robotic surgical system for application in minimally invasive surgery ("MIS"). The Company's SPORT<sup>TM</sup> Surgical System, currently under development, includes a surgeon-controlled robotic platform that incorporates a 3D high-definition vision system and multi-articulating instruments for performing MIS procedures through a single incision. The surgical system also includes a surgeon workstation that provides a surgeon with an advanced ergonomic interface to the robotic platform for controlling the instruments and provides a 3D high-definition endoscopic view of inside a patient's body. The SPORT<sup>TM</sup> Surgical System is designed to enable surgeons to perform a broad set of surgical procedures for general abdominal, gynecologic, and urologic indications. For more information, visit the Company's website at <u>www.titanmedicalinc.com</u>.

### Forward-Looking Statements

This news release contains "forward-looking statements" which reflect the current expectations of management of the Company's future growth, results of operations, performance and business prospects and opportunities. Wherever possible, words such as "may", "would", "could", "will", "anticipate", "believe", "plan", "expect", "intend", "estimate", "potential for" and similar expressions have been used to identify these forward-looking statements. These statements reflect management's current beliefs with respect to future events and are based on information currently available to management. Forward-looking statements involve significant risks, uncertainties and assumptions. Many factors could cause the Company's actual results, performance or achievements to be materially different from any future results, performance or achievements that may be expressed or implied by such forward-looking statements, including, without limitation, those listed in the "Risk Factors" section of the Company's Annual Information Form dated March 30, 2016 (which may be viewed at www.sedar.com). Should one or more of these risks or uncertainties materialize, or should assumptions underlying the forward-looking statements prove incorrect, actual results, performance or achievements may vary materially from those expressed or implied by the forward-looking statements. Although the forward-looking statements contained in the news release are based upon what management currently believes to be reasonable assumptions, the Company cannot assure prospective investors that actual results, performance or achievements will be consistent with these forward-looking statements.

### CONTACT INFORMATION

Titan Medical Inc.

Martin Bernholtz, Chairman (416) 548-7522 info@titanmedicalinc.com www.titanmedicalinc.com

### EVC Group, Inc.

Amanda Prior Aprior@evcgroup.com

Michael Polyviou mpolyviou@evcgroup.com (646) 445-4800



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## TITAN MEDICAL ANNOUNCES SENIOR MANAGEMENT CHANGE

TORONTO, ON - (Marketwired - January 9, 2017) - Titan Medical Inc. (the "Company") (TSX: TMD) (OTCQX: TITXF) takes this opportunity to provide an update.

As of today's date, Dr. Reiza Rayman has resigned as President of Titan Medical Inc. Dr. Rayman co-founded the Company in July 2008, with a view to developing a new robotic surgical platform. The Board of Directors takes this opportunity to thank Dr. Rayman for his clinical inspiration and years of service as President of the Company. The Board would also like to wish Dr. Rayman much success in his future endeavours.

"I have full confidence in Titan and the impact that SPORT<sup>TM</sup> Surgical System will have on patient care," said Dr. Reiza Rayman.

Effective immediately, David J. McNally, recently appointed CEO and Director, has also taken on the role of President.

### About Titan Medical Inc.

Titan Medical Inc. is a Canadian public company focused on the design and development of a robotic surgical system for application in minimally invasive surgery ("MIS"). The Company's SPORT<sup>TM</sup> Surgical System, currently under development, includes a surgeon-controlled robotic platform that incorporates a 3D high-definition vision system and multi-articulating instruments for performing MIS procedures through a single incision. The surgical system also includes a surgeon workstation that provides a surgeon with an advanced ergonomic interface to the robotic platform for controlling the instruments and provides a 3D high-definition endoscopic view of inside a patient's body. The SPORT<sup>TM</sup> Surgical System is designed to enable surgeons to perform a broad set of surgical procedures for general abdominal, gynecologic, and urologic indications. For more information, visit the Company's website at www.titanmedicalinc.com.

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## Titan Medical Inc.

David J. McNally, President, Chief Executive Officer (416) 548-7522 x 151 David.McNally@titanmedicalinc.com www.titanmedicalinc.com

## EVC Group, Inc.

Amanda Prior Aprior@evcgroup.com (646) 445-4800

Michael Polyviou mpolyviou@evcgroup.com (646) 445-4800

# Item 1 Name and Address of Company

Titan Medical Inc. (the "**Company**" or "**Titan**") 170 University Avenue Suite 1000 Toronto, Ontario M5H 3B3

## Item 2 Date of Material Change

January 1, 2017.

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Item 3 News Release
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The press release attached as Schedule "A" was disseminated through Marketwired on January 3, 2017 with respect to the material change.

## Item 4 Summary of Material Change

On January 3, 2017 Titan announced that David J. McNally had been appointed Chief Executive Officer and a Director of Titan effective January 1, 2017, to succeed Interim Chief Executive Officer John Barker who will remain a Director of Titan.

| Item 5                                                                                                              | Full Description of Material Change                         |  |
|---------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|--|
| 5.1                                                                                                                 | Full Description of Material Change                         |  |
| Please see the press release attached as Schedule "A".                                                              |                                                             |  |
| 5.2                                                                                                                 | Disclosure for Restructuring Transactions                   |  |
| Not applicable.                                                                                                     |                                                             |  |
| Item 6                                                                                                              | Reliance on subsection 7.1(2) of National Instrument 51-102 |  |
| Not applicable.                                                                                                     |                                                             |  |
| Item 7                                                                                                              | Omitted Information                                         |  |
| Not applicable.                                                                                                     |                                                             |  |
| Item 8                                                                                                              | Executive Officer                                           |  |
| The following executive officer is knowledgeable about the material changes and may be contacted about this report: |                                                             |  |
|                                                                                                                     |                                                             |  |

Stephen Randall Chief Financial Officer (416) 548-7522 (ext. 152)

# Email: stephen@titanmedicalinc.com Website: www.titanmedicalinc.com

# Item 9 Date of Report

January 10, 2017.

Schedule "A"

[See Attached]



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# HEALTHCARE INDUSTRY LEADER DAVID J. MCNALLY NAMED CEO OF TITAN MEDICAL INC.

Brings More than 30 Years of Experience Successfully Building Medical Device Companies and Generating Shareholder Returns; Also Named to Titan's Board of Directors

**TORONTO, ON – (Marketwired – January 3, 2017)** – David J. McNally, an executive who has successfully created and developed two medical device companies while generating significant shareholder value, has been appointed Chief Executive Officer and a Director of Titan Medical Inc. (TSX: TMD) (OTCQX: TITXF). Mr. McNally joined Titan on January 1, 2017 and succeeded interim CEO John Barker, who will remain a Director.

"After a very thorough search, which included the consideration of more than a dozen highly qualified candidates, the Board of Directors has selected David to lead Titan during its next stages of development," said Martin Bernholtz, Chairman of the Board. "David brings to Titan an impressive track record of successful medical device commercialization, plus capital markets experience that we identified as key criteria during our search process. We were most impressed with the returns he generated for his shareholders at ZEVEX International, which was sold to Moog, Inc. in 2007, as well as more recently with Domain Surgical, which was merged with OmniGuide, Inc. earlier this year to become a leading franchise in advanced energy. David has demonstrated extraordinary leadership skills with all facets of building innovative medical device companies including clinically-focused product design and development, capital formation, regulatory clearance, and commercialization. He also has direct experience in the highly competitive surgical space, which we considered another key asset. Our board is fully committed to working with David to advance the SPORT Surgical System's development program in an effective and efficient manner. I would also like to commend John Barker for the speed and efficiency he displayed in executing the search leading to David's appointment," Mr. Bernholtz concluded.

"I am thrilled to be joining Titan as the team moves to refine the design and commence the regulatory approval process for the innovative SPORT<sup>TM</sup> Surgical System," said Mr. McNally. "Based on my research during the interviewing process, I've come to the conclusion that SPORT can deliver a unique range of benefits and improved healthcare outcomes to patients, surgeons and hospitals. We are confident that SPORT can produce these advantages at significant cost savings compared to other robotic surgical systems."

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# Forward-Looking Statements

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# CONTACT INFORMATION

Titan Medical Inc.

Martin Bernholtz, Chairman (416) 548-7522 info@titanmedicalinc.com www.titanmedicalinc.com

# EVC Group, Inc.

Amanda Prior Aprior@evcgroup.com

# Item 1 Name and Address of Company

Titan Medical Inc. (the "**Company**" or "**Titan**") 170 University Avenue Suite 1000 Toronto, Ontario M5H 3B3

# Item 2 Date of Material Change

January 9, 2017.

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Item 3 News Release
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The press release attached as Schedule "A" was disseminated through Marketwired on January 9, 2017 with respect to the material change.

# Item 4 Summary of Material Change

Titan announced that Dr. Reiza Rayman has resigned as President of Titan effective January 9, 2017. David J. McNally, the recently appointed Chief Executive Officer and a Director of Titan, has also assumed the role of President of Titan with immediate effect.

| Item 5                                                                                                              | Full Description of Material Change                         |  |  |
|---------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|--|--|
| 5.1                                                                                                                 | Full Description of Material Change                         |  |  |
| Please see the press release attached as Schedule "A".                                                              |                                                             |  |  |
| 5.2                                                                                                                 | Disclosure for Restructuring Transactions                   |  |  |
| Not applicable.                                                                                                     |                                                             |  |  |
| Item 6                                                                                                              | Reliance on subsection 7.1(2) of National Instrument 51-102 |  |  |
| Not applicable.                                                                                                     |                                                             |  |  |
| Item 7                                                                                                              | Omitted Information                                         |  |  |
| Not applicable.                                                                                                     |                                                             |  |  |
| Item 8                                                                                                              | Executive Officer                                           |  |  |
| The following executive officer is knowledgeable about the material changes and may be contacted about this report: |                                                             |  |  |
|                                                                                                                     |                                                             |  |  |

Stephen Randall Chief Financial Officer (416) 548-7522 (ext. 152)

# Email: stephen@titanmedicalinc.com Website: www.titanmedicalinc.com

# Item 9 Date of Report

January 10, 2017.

Schedule "A"

[See Attached]



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### TITAN MEDICAL ANNOUNCES SENIOR MANAGEMENT CHANGE

TORONTO, ON - (Marketwired - January 9, 2017) - Titan Medical Inc. (the "Company") (TSX: TMD) (OTCQX: TITXF) takes this opportunity to provide an update.

As of today's date, Dr. Reiza Rayman has resigned as President of Titan Medical Inc. Dr. Rayman co-founded the Company in July 2008, with a view to developing a new robotic surgical platform. The Board of Directors takes this opportunity to thank Dr. Rayman for his clinical inspiration and years of service as President of the Company. The Board would also like to wish Dr. Rayman much success in his future endeavours.

"I have full confidence in Titan and the impact that SPORT<sup>TM</sup> Surgical System will have on patient care," said Dr. Reiza Rayman.

Effective immediately, David J. McNally, recently appointed CEO and Director, has also taken on the role of President.

### About Titan Medical Inc.

Titan Medical Inc. is a Canadian public company focused on the design and development of a robotic surgical system for application in minimally invasive surgery ("MIS"). The Company's SPORT<sup>TM</sup> Surgical System, currently under development, includes a surgeon-controlled robotic platform that incorporates a 3D high-definition vision system and multi-articulating instruments for performing MIS procedures through a single incision. The surgical system also includes a surgeon workstation that provides a surgeon with an advanced ergonomic interface to the robotic platform for controlling the instruments and provides a 3D high-definition endoscopic view of inside a patient's body. The SPORT<sup>TM</sup> Surgical System is designed to enable surgeons to perform a broad set of surgical procedures for general abdominal, gynecologic, and urologic indications. For more information, visit the Company's website at www.titanmedicalinc.com.

# Forward-Looking Statements

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# Titan Medical Inc.

David J. McNally, President, Chief Executive Officer (416) 548-7522 x 151 David.McNally@titanmedicalinc.com www.titanmedicalinc.com

# EVC Group, Inc.

Amanda Prior Aprior@evcgroup.com (646) 445-4800



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# Titan Medical to Present at 13<sup>th</sup> Annual Noble Conference on January 30

**TORONTO, ON, January 25, 2017** – Titan Medical, Inc. (TSX: <u>TMD</u>) (OTCQX: <u>TITXF</u>), a medical device company focused on the design and development of a robotic surgical system for application in minimally invasive surgery (MIS), today announced that David McNally, President and CEO of Titan Medical will present on January 30<sup>th</sup> at 12:30pm, room 2, at the 13<sup>th</sup> Annual Noble Conference from January 30 - 31, 2017, in Boca Raton, Fl. Attendance at the conference is by invitation only.

The webcast of the presentation can be viewed 24 hours after the live presentation, by going to Investor Relations section of the company's website at <a href="http://www.titanmedicalinc.com/investor-relations">http://www.titanmedicalinc.com/investor-relations</a>.

For more information about the conference, please go to <u>https://nobleconference.com/noblecon13</u>.

### About Titan Medical Inc.

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# CONTACT INFORMATION

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TITAN MEDICAL.

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# TITAN MEDICAL APPOINTS PERRY A. GENOVA VICE PRESIDENT OF RESEARCH AND DEVELOPMENT

Biomedical Engineering Executive Brings Over 25 Years of Innovative Medical Device Product Development Experience

#### Published 32 Peer-Reviewed Papers and Holds 30 U.S. Patents

**TORONTO, ON - February 6, 2017**- Titan Medical Inc. (TSX: TMD) (OTCQX: TITXF), a medical device company focused on the design and development of a robotic surgical system for application in minimally invasive surgery (MIS), today announced that Perry A. Genova, PhD, a senior biomedical engineering executive, has been appointed Vice President of Research and Development. Dr. Genova will report to David J. McNally, Titan Medical's Chief Executive Officer, and his responsibilities include the development of the Company's SPORT<sup>TM</sup> Surgical System. Dr. Genova is a recognized expert in medical device product development and has published 32 peer-reviewed papers and been issued 30 U.S. Patents, with another 24 U.S. patents pending.

"Perry's proven track record of successful development and commercialization of complex medical products, combined with his broad management expertise are a tremendous addition to Titan Medical. He will greatly influence the strategic direction of the Company's assets," commented Mr. McNally. "I am confident that his medical device experience and recognized leadership skills will allow him to seamlessly join the executive team, allowing us to accelerate the development of the SPORT Surgical System."

"I am excited by the opportunity to join Titan as the team moves to refine and finalize the product design and commence with the regulatory clearance process for the SPORT<sup>TM</sup> Surgical System," said Dr. Genova. "I am confident that SPORT can deliver a unique range of benefits and improved healthcare outcomes to patients, surgeons and hospitals."

Dr. Genova is an accomplished biomedical engineering executive recognized for building and leading successful teams in medical device product development in small and multi-national companies in the U.S. and Europe. Prior to joining Titan, Dr. Genova was with Durham, NC Centauri Robotic Surgical Systems, Inc., a privately-held developer of a disruptive surgical robot for stereotactic neurosurgery. Prior to Centauri he was President and CEO of Oncoscope, Inc., a medical device company that developed a non-invasive light-based cancer diagnostic, which was acquired by SpectraScience in 2016. Dr. Genova received a PhD in Biomedical Engineering from The University of North Carolina at Chapel Hill, and a Bachelor's Degree in Electrical Engineering from The University of North Carolina at Chapel Hill, and a Bachelor's Degree in Electrical Engineering from The University of North Carolina at Chapel Hill, and a Bachelor's Degree in Electrical Engineering from The University of North Carolina at Chapel Hill, and a Bachelor's Degree in Electrical Engineering from The University of North Carolina at Chapel Hill, and a Bachelor's Degree in Electrical Engineering from The University of North Carolina at Chapel Hill, and a Bachelor's Degree in Electrical Engineering from The University of North Carolina at Chapel Hill, and a Bachelor's Degree in Electrical Engineering from The University of North Carolina at Chapel Hill, and a Bachelor's Degree in Electrical Engineering from The University of North Carolina at Chapel Hill, and a Bachelor's Degree in Electrical Engineering from The University of North Carolina at Chapel Hill, and a Bachelor's Degree in Electrical Engineering from The University of North Carolina at Chapel Hill, and a Bachelor's Degree in Electrical Engineering from The University of North Carolina at Chapel Hill, and a Bachelor's Degree in Electrical Engineering from The University of North Carolina at Chapel Hill, and a Bachelor's Degree in Electrical Engineering from The University of North Carolina at Chape

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# Forward-Looking Statements

This news release contains "forward-looking statements" which reflect the current expectations of management of the Company's future growth, results of operations, performance and business prospects and opportunities. Wherever possible, words such as "may", "would", "could", "will", "anticipate", "believe", "plan", "expect", "intend", "estimate", "potential for" and similar expressions have been used to identify these forward-looking statements. These statements reflect management's current beliefs with respect to future events and are based on information currently available to management. Forward-looking statements involve significant risks, uncertainties and assumptions. Many factors could cause the Company's actual results, performance or achievements to be materially different from any future results, performance or achievements, including, without limitation, those listed in the "Risk Factors" section of the Company's Annual Information Form dated March 30, 2016 (which may be viewed at www.sedar.com). Should one or more of these risks or uncertainties materialize, or should assumptions underlying the forward-looking statements prove incorrect, actual results, performance or achievements may vary materially from those expressed or implied by the forward-looking statements. Although the forward-looking statements contained in this news release. These factors should be considered carefully, and prospective investors should not place undue reliance on the forward-looking statements. Although the forward-looking statements contained in the news release are based upon what management currently believes to be reasonable assumptions, the Company cannot assure prospective investors that actual results, performance or achievements will be consistent with these forward-looking statements.

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### TITAN MEDICAL INC. ANNOUNCES OVERNIGHT MARKETED EQUITY OFFERING

Toronto, ON – (Marketwired – March 7, 2017 – Titan Medical Inc. ("Titan" or the "Company") (TSX: TMD) (OTCQX: TITXF) announced today that it will undertake an overnight marketed public offering (the "Offering") of securities of the Company ("Securities"). The Offering will be undertaken by Bloom Burton Securities Inc., as the Company's agent in respect of the Offering, on a best efforts agency basis in the provinces of British Columbia, Alberta and Ontario pursuant to a prospectus supplement (the "Prospectus Supplement") to the Company's base shelf prospectus dated August 18, 2015 (together with the Prospectus Supplement, the "Prospectus"), to be filed with securities regulators in Ontario, British Columbia and Alberta. The Securities may also be offered for sale in the United States through one or more United States registered broker-dealer(s) appointed by the Agent as sub-agent(s) pursuant to exemptions from the registration requirements of the U.S. Securities Act and applicable state laws. The number of Securities to be distributed, the price and other terms of the Offering will be determined in the context of the market with final terms to be determined at the time of pricing.

The Offering is subject to a number of conditions, including, without limitation, receipt of all regulatory approvals. The net proceeds of the Offering will be used to fund continued development work in connection with the Company's SPORT<sup>TM</sup> Surgical System, as well as for working capital and other general corporate purposes. Further details will be disclosed in the Prospectus Supplement.

### About Titan Medical Inc.

Titan Medical Inc. is a Canadian public company focused on research and development through to the planned commercialization of computer-assisted robotic surgical technologies for application in minimally invasive surgery ("MIS"). The Company is currently developing the SPORT Surgical System, a single-port robotic surgical system. The SPORT Surgical System is comprised of a surgeon-controlled patient cart that includes a 3D high definition vision system and multi-articulating instruments for performing MIS procedures, and a surgeon workstation that provides the surgeon with an advanced ergonomic interface to the patient cart and a 3D endoscopic view inside the patient's body during MIS procedures. With the SPORT Surgical System, the Company aims to pursue a broad set of surgical indications, including general abdominal, gynecologic and urologic procedures.

For more information, please visit the Company's website at www.titanmedicalinc.com.

#### Forward-Looking Statements

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#### **U.S. Securities Law Caution**

The securities described herein have not been, and will not be, registered under the United States Securities Act of 1933, as amended (the "U.S. Securities Act"), or any state securities laws, and accordingly, may not be offered or sold to, or for the account or benefit of, persons in the United States or "U.S. persons," as such term is defined in Regulation S promulgated under the U.S. Securities Act ("U.S. Persons"), except in compliance with the registration requirements of the U.S. Securities Act and applicable state securities requirements or pursuant to exemptions therefrom. This press release does not constitute an offer to sell or a solicitation of an offer to buy any of the Company's securities to, or for the account or benefit of, persons in the United States or U.S. Persons.

# Neither TSX nor its Regulation Services Provider (as that term is defined in the policies of the TSX) accepts responsibility for the adequacy or accuracy of this release.

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#### Titan Medical Inc. Announces Pricing of Overnight Marketed Equity Offering

Toronto, ON – (Marketwired – March 8, 2017) – Titan Medical Inc. ("Titan" or the "Company") (TSX: TMD) (OTCQX: TITXF) is pleased to announce today that it has priced its previously announced overnight marketed offering of equity securities for up to US\$5,600,000 (approximately C\$7,500,000) (the "Offering"). Pursuant to the Offering, Titan will issue units of the Company ("Units") at a price of C\$0.35 per Unit. Each Unit is comprised of one common share of the Company (a Common Share") and (i) a ½ common share purchase warrant, each whole warrant (a "2019 Warrant") exercisable for one Common Share, at a price of C\$0.40 for a period of two years following the closing of the Offering (the "Closing"), and (ii) a ½ common share purchase warrant, each whole warrant, each whole warrant (a "2019 Warrant") exercisable for one Common Share, at a price of C\$0.40 for a period of two years following the closing of the Offering (the "Closing"), and (ii) a ½ common share purchase warrant, each whole warrant (a "2019 Warrant") exercisable for one Common Share, at a price of C\$0.50 for a period of four years following Closing.

The Offering will be undertaken on a best efforts basis pursuant to the terms and conditions of an agency agreement to be entered into between the Company and Bloom Burton Securities Inc. (the "Agent"). In connection with the Offering, the Agent will be paid a cash commission equal to 7.0% of the gross proceeds of the Offering and it will be issued that number of non-transferable broker warrants exercisable for Common Shares equal to 7.0% of the number of Units sold in the Offering (in each case excluding any Units sold to certain excluded subscribers). The Company will also grant the Agent an over-allotment option to offer for sale that number of additional Units and/or Warrants equal to 15% of the Units sold under the Offering, subject to the maximum number of additional Units and/or Warrants issuable under Titan's base shelf prospectus dated August 18, 2015, exercisable at any time and from time to time on or before the date of Closing ( the "Closing Date") or for a period of up to 30 days following the Closing Date.

The Company expects the Closing to occur on or about March 16, 2017. The Offering is subject to the satisfaction of certain customary closing conditions, including, but not limited to, the receipt of all necessary regulatory and stock exchange approvals (including, for certainty, the approval of the Toronto Stock Exchange (the "TSX")). The Offering is to be effected in each of the provinces of British Columbia, Alberta and Ontario by way of a prospectus supplement (the "Prospectus Supplement") to Titan's base shelf prospectus dated August 18, 2015. In addition, the Units may also be offered for sale in the United States, by or through a United States registered broker-dealer appointed by the Agent as sub-agent, and in certain offshore jurisdictions, in each case under available exemptions from the prospectus and registration requirements of applicable securities laws.

The net proceeds of the Offering (the 'Net Proceeds') will be used to fund continued development work in connection with the Company's SPORT<sup>M</sup> Surgical System, as well as for working capital and other general corporate purposes. Details as to the specific allocation of the Net Proceeds will be disclosed in the Prospectus Supplement.

The Common Shares are listed on the TSX under the symbol "TMD". An application will be made to list the Common Shares issuable under the Offering for trading on the TSX. Listing will be subject to the Company fulfilling all of the requirements of the TSX.

# About Titan Medical Inc.

Titan Medical Inc. is a Canadian public company focused on the design and development of a robotic surgical system for application in minimally invasive surgery (**MIS**"). The Company's SPORT Surgical System, currently under development, includes a surgeon-controlled robotic platform that includes a 3D high-definition vision system and instruments for performing MIS procedures. The surgical system also includes a surgeon workstation that provides the surgeon with an advanced ergonomic interface to the robotic platform for controlling the instruments and provides a 3D high-definition endoscopic view of inside a patient's body. The SPORT Surgical System is designed to enable surgeons to perform a broad set of surgical procedures for general abdominal, gynecological and urologic indications. For more information, visit the Company's website at <u>www.titanmedicalinc.com</u>.

# Forward-Looking Statements

This press release contains "forward-looking statements" which reflect the current expectations of management of the Company, including with respect to the intended use of the Net Proceeds. Such statements include, but are not limited to, statements regarding receipt of applicable regulatory approvals, the anticipated Closing Date and the proposed use of proceeds. Wherever possible, words such as "may", "would", "could", "will", "anticipate", "believe", "plan", "expect", "intend", "estimate", "potential for" and similar expressions have been used to identify these forward-looking statements. These statements reflect management's current beliefs with respect to future events and are based on information currently available to management. Forward-looking statements involve significant risks, uncertainties and assumptions. Many factors could cause the Company's actual results, performance or achievements to be materially different from any future results, performance or achievements to be materially different from any future results, performance or achievements and marks or implied by such forward-looking statements, including, without limitation, those listed in the "Risk Factors" section of the Company's Annual Information Form dated March 30, 2016 (which may be viewed at <u>www.sedar.com</u>). Should one or more of these risks or uncertainties materialize, or should assumptions underlying the forward looking statements prove incorrect, actual results, performance or achievements may vary materially from those expressed or implied by the forward-looking statements. Although the forward-looking statements currently believes to be reasonable assumptions, the Company cannot assure prospective investors that actual results, performance or achievements will be consistent with these forward-looking statements.

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# Titan Medical to Present at 29<sup>th</sup> Annual ROTH Conference on March 14

### **Company to Webcast Management Presentation**

**TORONTO, ON, March 9, 2017** – Titan Medical, Inc. (TSX:<u>TMD</u>) (OTCQX: <u>TITXF</u>), a medical device company focused on the design and development of a robotic surgical system for application in minimally invasive surgery (MIS), today announced that David McNally, President and CEO of Titan Medical will present an overview of the Company at the 29<sup>th</sup> Annual ROTH Conference. Mr. McNally's presentation will take place on March 14<sup>th</sup> at 4:30pm PDT and will be webcast live from the Company's website. Attendance at the conference is by invitation only.

The webcast of the presentation can be viewed by going to the Investor Relations section of the company's website at <u>http://www.titanmedicalinc.com/investors</u>. For more information about the conference, please visit <u>http://www.roth.com</u>.

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# AGENCY AGREEMENT

March 10, 2017

Titan Medical Inc. 170 University Avenue, Suite 1000 Toronto, Ontario M5H 3B3

# Attention: David J. McNally, President and Chief Executive Officer

#### Dear Sir:

Bloom Burton Securities Inc. (the "Agent") understands that Titan Medical Inc. (the "Corporation") proposes to issue and sell a minimum of 15,333,714 units of the Corporation (the "Offered Units") and up to a maximum of 21,467,200 Offered Units at a price of \$0.35 per Offered Unit (the 'Offering Price'') for aggregate gross proceeds of a minimum of approximately \$5,366,800 (the "Minimum Offering") and a maximum of \$7,513,520. Each Offered Unit shall consist of (i) one Common Share (as defined herein) (a "Unit Share"), (ii) one-half of one Common Share purchase warrant (each whole Common Share purchase warrant, a "2019 Warrant"), each 2019 Warrant entitling the holder thereof to purchase one Common Share (a "2019 Warrant Share") at an exercise price of \$0.40 per 2019 Warrant Share, subject to adjustment, at any time until 5:00 p.m. (Toronto time) on the date that is 24 months after the Closing (as defined herein); and (iii) one-half of one Common Share one Common Share to 2019 Warrant, a "2021 Warrant" and, together with the 2019 Warrant, the "Warrant Shares") at an exercise price of \$0.50 per 2021 Warrant Share and, together with the 2019 Warrant Shares, the "Warrant Shares") at an exercise price of \$0.50 per 2021 Warrant Share, subject to adjustment, at any time until 5:00 p.m. (Toronto time) on the date that is 48 months after the Closing. The offering of the Offered Units by the Corporation is hereinafter referred to as the "Offering The offering of the Offered Units by the Corporation is hereinafter referred to as the "Offering".

The Corporation wishes to appoint the Agent to act as its exclusive agent, and to effect the sale of the Offered Units on a best efforts basis. The Agent shall be entitled to appoint a soliciting dealer group consisting of other registered dealers acceptable to the Corporation (each, a "Selling Firm") for the purpose of arranging for purchases of the Offered Units.

It is further understood and agreed that the Corporation shall be entitled to offer and sell Offered Units sold pursuant to the Offering to certain subscribers on a president's list and settling directly with the Corporation (the "**President's List Subscribers**"); provided, however, that (i) the Agent and any Selling Firm shall not be required to conduct a suitability review in respect of sales by the Corporation of Offered Units to any President's List Subscriber; (ii) the Agent and any Selling Firm shall not be obligated, and may, in their sole discretion, refuse to process any subscription for Offered Units from any President's List Subscriber, and (iii) the Corporation shall indemnify and save harmless the Agent, any Selling Firm and any Indemnified Party (as hereinafter defined) for and against all losses relating to any sales of Offered Units by the Corporation to any President's List Subscriber.

In consideration of the Agent's services hereunder, the Corporation agrees to pay to the Agent a fee (the "Agency Fee") equal to 7.0% of the gross proceeds realized by the Corporation in respect of the sale of the Offered Units (excluding any Offered Units sold to any President's List Subscriber). Proceeds raised through the sale of Offered Units to President's List Subscribers will not be subject to any commission and will in no way make up the Agency Fee. As additional consideration for its services performed under this Agreement (as hereinafter defined), the Corporation shall issue to the Agent (in such name or names as the Agent may direct in writing) compensation warrants (the "Compensation Warrants") exercisable to acquire that number of Common Shares as is equal to 7.0% of the Offered Units sold under the Offering (excluding any Offered Units sold to any President's List Subscriber) at an exercise price equal to the Offering Price at any time before 5:00 p.m. (Toronto time) on the date that is 24 months following the Closing Date.

The obligation of the Corporation to pay the Agency Fee and to issue the Compensation Warrants shall arise at the Closing Time (as hereinafter defined) against payment for the Offered Units, and the Agency Fee and the Compensation Warrants shall be fully earned by the Agent at such time.

It is understood that the Offered Units will be offered to Purchasers (as hereinafter defined) resident in: (i) the Provinces of British Columbia, Alberta and Ontario (collectively, the "**Canadian Selling Jurisdictions**"); and (ii) jurisdictions other than the Canadian Selling Jurisdictions as may mutually be agreed to by the Corporation and the Agent, including the United States in accordance with Schedule B hereto (collectively with the Canadian Selling Jurisdictions, the "**Selling Jurisdictions**"), on a private placement basis, provided that the Corporation is not required to file a prospectus, registration statement or other disclosure document or become subject to continuing obligations in such other jurisdictions, in each case in accordance with the provisions of this Agreement. With respect to the offer or sale of any Offered Units in the United States, the parties to this Agreement acknowledge and agree that the Agent may appoint duly registered U.S. broker-dealers (each, a "**U.S. Selling Group Member**") to act as subagents to conduct offers and sales of the Offered Securities in the United States or to, or for the account or benefit of, persons in the United States or U.S. Persons (as defined herein).

# DEFINITIONS

Unless expressly provided otherwise, where used in this Agreement, the following terms shall have the following meanings:

"2019 Warrant" has the meaning ascribed thereto in the first paragraph of this Agreement;

"2019 Warrant Share" has the meaning ascribed thereto in the first paragraph of this Agreement;

"2021 Warrant" has the meaning ascribed thereto in the first paragraph of this Agreement;

"2021 Warrant Share" has the meaning ascribed thereto in the first paragraph of this Agreement;

"affiliate", "associate", "material change", "material fact" and "misrepresentation" shall have the respective meanings ascribed thereto under Applicable Securities Laws of the Canadian Selling Jurisdictions;

"Agency Fee" has the meaning ascribed thereto in the fourth paragraph of this Agreement;

"Agent" has the meaning ascribed thereto in the first paragraph of this Agreement;

"Agreement" means the agreement resulting from the acceptance by the Corporation of the offer made hereby;

"Applicable IP Laws" means, with respect to a specific Intellectual Property, all applicable federal, provincial, state and local laws and regulations applicable to that Intellectual Property in the countries where rights in such Intellectual Property arise, the countries including Canada, the United States, the European Union and the jurisdictions in which the Corporation has registered Intellectual Property; "Applicable Laws" means all applicable federal, provincial, state and local laws and regulations of authorities having jurisdiction over the Corporation or the Agent, as applicable;

"Applicable Securities Laws" means, collectively, the applicable securities laws of the Canadian Selling Jurisdictions, the regulations, rules, rulings and orders made thereunder, the applicable published policy statements issued by the applicable securities commissions thereunder, and the securities legislation and published policies of each Selling Jurisdiction;

"Applied for Corporation IP" means all Corporation IP that is the subject of an application with a national intellectual property office (including, without limitation, the CIPO and the USPTO);

"Audited Financial Statements" means the audited financial statements of the Corporation as at and for the years ended December 31, 2015 and 2014;

"Business Day" means a day which is not a Saturday, Sunday or statutory or civic holiday in the City of Toronto, Ontario;

"Canadian Securities Regulators" means, collectively, the applicable securities commission or securities regulatory authority in each of the Canadian Selling Jurisdictions;

"Canadian Selling Jurisdictions" has the meaning ascribed thereto in the sixth paragraph of this Agreement;

"CDS" has the meaning ascribed thereto in Section 8;

"CIPO" means the Canadian Intellectual Property Office;

"Claims" has the meaning ascribed thereto in Section 12;

"Closing" means the completion of the issue and sale by the Corporation of the Offered Units;

"Closing Date" means March 16, 2017, or such other date as the Agent and the Corporation may agree;

"Closing Time" means 8:00 a.m. (Toronto time) on the Closing Date or such other time on the Closing Date as the Corporation and the Agent may agree;

"Common Shares" means the common shares in the capital of the Corporation, which the Corporation is authorized to issue, as constituted on the date hereof;

"comparables" has the meaning ascribed thereto in NI 41-101;

"Compensation Warrants" has the meaning ascribed thereto in the fourth paragraph of this Agreement;

"Compensation Warrant Certificates" means the certificates representing the Compensation Warrants;

"Corporation" has the meaning ascribed thereto in the first paragraph of this Agreement;

"Corporation's Auditors" means BDO Canada LLP, Chartered Accountants, or such other firm of chartered accountants as the Corporation may have appointed or may from time to time appoint as auditors of the Corporation;

"Corporation IP" means the Intellectual Property identified in Schedule "C" and Schedule "D" to this Agreement;

"Disclosure Record" means, without limitation, all information contained in any press releases, material change reports, financial statements, prospectuses, annual and quarterly reports or other document of the Corporation which has been publicly filed on SEDAR by, or on behalf of, the Corporation pursuant to Applicable Securities Laws of the Canadian Selling Jurisdictions;

"Distribution" means "distribution" or "distribution to the public" as those terms are defined under Applicable Securities Laws of the Canadian Selling Jurisdictions;

"Documents Incorporated by Reference" means all financial statements, management's discussion and analysis, management information circulars, annual information forms, material change reports or other documents issued by the Corporation, whether before or after the date of this Agreement, that are required by NI 44-101 to be incorporated by reference into the Prospectus or any Prospectus Amendment;

"Due Diligence Session" has the meaning ascribed thereto in subsection 6(a);

"Eligible Issuer" means an issuer that meets the criteria and has complied with the requirements of NI 44-101 so as to allow it to offer its securities using a short form prospectus;

"Engagement Letter" means the letter agreement dated February 23, 2017 between the Corporation and the Agent relating to the Offering;

"Environmental Laws" has the meaning ascribed thereto in subsection 7(ii);

"FDA" means the U.S. Food and Drug Administration of the U.S. Department of Health & Human Services;

"Financial Statements" means the Audited Financial Statements and the Interim Financial Statements;

"Indemnified Party" has the meaning ascribed thereto in Section 12;

"Intellectual Property" means all copyrights, patents, patent rights, industrial designs, know-how (including trade secrets and other unpatented or unpatentable proprietary or confidential information, systems or procedures);

"Interim Financial Statements" means the unaudited condensed interim financial statements of the Corporation as at and for the three month and nine month periods ended September 30, 2016 and 2015;

"knowledge" means, as it pertains to the Corporation, the actual knowledge, after due inquiry, of the President and Chief Executive Officer, the Chief Financial Officer and, in the case of matters relating to Corporation IP and Licensed IP, the employee of the Corporation that is the most responsible for directing such matters;

"Leased Premises" has the meaning ascribed thereto in subsection 7(ll);

"Licensed IP" means the Intellectual Property owned by any person other than the Corporation and to which the Corporation has a license which has not expired or been terminated, including the Intellectual Property identified in Schedule "E";

"marketing materials" has the meaning ascribed thereto in NI 41-101;

- 5 -

"Material Adverse Effect" means any change, event, violation, inaccuracy, circumstance or effect that is materially adverse to the business, assets (including intangible assets), capitalization, financial condition or results of operations of the Corporation, whether or not arising in the ordinary course of business;

"Material Agreement" means any "material contract" filed on SEDAR by the Corporation pursuant to NI 51-102;

"Material Permits" has the meaning ascribed thereto in subsection 7(qq);

"Minimum Offering" has the meaning ascribed thereto in the first paragraph of this Agreement;

"NI 41-101" means National Instrument 41-101 - General Prospectus Requirements;

"NI 44-101" means National Instrument 44-101 - Short Form Prospectus Distributions;

"NI 51-102" means National Instrument 51-102 - Continuous Disclosure Obligations;

"Notice" has the meaning ascribed thereto in Section 17;

"Offered Units" has the meaning ascribed thereto in the first paragraph of this Agreement;

"Offering" has the meaning ascribed thereto in the first paragraph of this Agreement;

"Offering Documents" has the meaning ascribed to such term in subsection 5(a)(iii);

"Offering Price" has the meaning ascribed thereto in the first paragraph of this Agreement;

"person" shall be interpreted broadly and shall include any individual, corporation, partnership, joint venture, association, trust or other legal entity;

"President's List Subscribers" has the meaning ascribed thereto in the third paragraph of this Agreement;

"Prospectus" means the short form base shelf prospectus of the Corporation dated August 18, 2015 as supplemented by the Prospectus Supplement;

"Prospectus Amendment" means any amendment or supplement to the Prospectus;

"Prospectus Supplement" means the prospectus supplement to be dated on or about March 10, 2017, including all Documents Incorporated by Reference therein;

"Purchasers" means any persons who acquire Offered Units at the Closing Time;

"Registered Corporation IP" means all Corporation IP that is the subject of a registration with a national intellectual property office (including, without limitation, the CIPO and the USPTO);

"Regulatory Authority" means the statutory or governmental bodies authorized under Applicable Laws to protect and promote public health through regulation and supervision of therapeutic drug candidates intended for use in humans, including, without limitation, the FDA and Health Canada and any other regulatory or governmental agency having jurisdiction over the Corporation or its activities;

- 6 -

"Securities Regulators" means the applicable securities regulatory authorities in the Selling Jurisdictions, including, without limitation, the Canadian Securities Regulators and the TSX;

"SEDAR" means the system for electronic document analysis and retrieval operated by the Canadian Securities Administrators;

"Selling Firm" has the meaning ascribed thereto in the second paragraph of this Agreement;

"Selling Jurisdictions" has the meaning ascribed thereto in the sixth paragraph of this Agreement;

"Standard Listing Conditions" has the meaning ascribed thereto in subsection 4(a)(iv);

"standard term sheet" has the meaning ascribed thereto in NI 41-101;

"Taxes" has the meaning ascribed thereto in subsection 7(j);

"template version" has the meaning ascribed thereto in NI 41-101;

"Transfer Agent" means Computershare Investor Services Inc.;

"TSX" means the Toronto Stock Exchange;

"TSX Letter" has the meaning ascribed thereto in subsection 4(a)(iv);

"TSX Manual" means the TSX Company Manual;

"Unit Shares" has the meaning ascribed thereto in the first paragraph of this Agreement;

"United States" or "U.S." means the United States of America, its territories and possessions, any state of the United States, and the District of Columbia;

"USPTO" means the United States Patent and Trademark Office;

"U.S. Exchange Act" means the United States Securities and Exchange Act of 1934, as amended;

"U.S. Memorandum" has the meaning ascribed thereto in subsection 4(a)(iii);

"U.S. Person" means a "U.S. person" as such term is defined in Regulation S under the U.S. Securities Act;

"U.S. Securities Act" means the U.S. Securities Act of 1933, as amended;

"U.S. Selling Group Member" has the meaning ascribed thereto in the sixth paragraph of this Agreement;

"Warrant Indentures" means the warrant indentures between the Corporation and Computershare Trust Company of Canada, in its capacity as warrant agent, governing the Warrants;

"Warrant Shares" has the meaning ascribed thereto in the first paragraph of this Agreement; and

"Warrants" has the meaning ascribed thereto in the first paragraph of this Agreement.

The following are the schedules attached to this Agreement, which schedules are deemed to be a part hereof and are hereby incorporated by reference herein:

| Schedule "A" | - | Convertible Securities                        |
|--------------|---|-----------------------------------------------|
| Schedule "B" | - | Compliance with United States Securities Laws |
| Schedule "C" | - | Corporation IP                                |
| Schedule "D" | - | Licensor Contracts                            |
| Schedule "E" | - | Licensing Agreements                          |
|              |   |                                               |

# TERMS AND CONDITIONS

#### 1. Nature of the Transaction

Based upon the foregoing and subject to the terms and conditions set out below, the Corporation hereby appoints the Agent to act as its exclusive agent, and the Agent hereby accepts such appointment, to effect the sale of the Offered Units for an aggregate purchase price of a minimum of approximately \$5,366,800 and up to a maximum of \$7,513,520, on a best efforts basis to persons resident in the Selling Jurisdictions. The Agent agrees to use its best efforts to sell the Offered Units, but it is hereby understood and agreed that the Agent shall act as agent only and is under no obligation to purchase any of the Offered Units, although the Agent may subscribe for the Offered Units if it so desires. The Offering will be subject to subscriptions being received for the Minimum Offering. All funds received by the Agent will be held in trust until the Minimum Offering has been attained. Notwithstanding any other term of this Agreement, all subscription funds received by the Agent will be returned to the Purchasers if the Minimum Offering is not attained by the Closing Time.

Until the Closing or termination of this Agreement, the Corporation and Agent shall approve in writing (prior to such time that marketing materials are provided to potential investors) any marketing materials reasonably requested to be provided by the Agent to any potential investor of Offered Units, such marketing materials to comply with Applicable Securities Laws of the Canadian Selling Jurisdictions. The Agent shall provide a copy of any marketing materials used in connection with the Offering, to the Corporation in accordance with this Section 1. The Corporation shall file a template version and any revised template version of such marketing materials with the Canadian Securities Regulators as soon as reasonably practicable after such marketing materials are so approved in writing by the Corporation and the Agent, and in any event on or before the day the marketing materials are first provided to any potential investor of Offered Units, and such filing shall constitute the Agent's authority to use such marketing materials in connection with the Offering. Any comparables shall be redacted from the template version in accordance with NI 44-101 prior to filing such template version with the Canadian Securities Regulators and a complete template version containing such comparables and any disclosure relating to the comparables, if any, shall be delivered to the Canadian Securities Regulators by the Corporation.

The Corporation and the Agent, on a several basis, covenant and agree:

(a) not to provide any potential investor of Offered Units with any marketing materials unless a template version of such marketing materials has been filed by the Corporation with the Canadian Securities Regulators on or before the day such marketing materials are first provided to any potential investor of Offered Units;

- (b) not to provide any potential investor with any materials or information in relation to the Distribution of the Offered Units or the Corporation other than: (A) such marketing materials that have been approved and filed in accordance with this Section 1; (B) the Prospectus and any Prospectus Amendments; and (C) any standard term sheets approved in writing by the Corporation and the Agent; and
- (c) that any marketing materials approved and filed in accordance with this Section 1 and any standard term sheets approved in writing by the Corporation and the Agent shall only be provided to potential investors in the Selling Jurisdictions where the provision of such marketing materials or standard term sheets does not contravene Applicable Securities Laws.

### 2. Prospectus Supplement

The Corporation shall use commercially reasonable best efforts to file a Prospectus Supplement in each of the Canadian Selling Jurisdictions not later than 10:45 p.m. (Toronto time) on March 10, 2017.

Until the date on which the Distribution of the Offered Units is completed, the Corporation will promptly take, or cause to be taken, all additional steps and proceedings that may from time to time be required or desirable under Applicable Securities Laws of the Canadian Selling Jurisdictions to continue to qualify the Distribution of the Offered Units and the Compensation Warrants, or, in the event that the Offered Units and the Compensation Warrants have, for any reason, ceased to so qualify, to so qualify again the Offered Units and the Compensation Warrants for Distribution in the Canadian Selling Jurisdictions.

# 3. Covenants and Representations of the Agent

- (a) The Agent has complied and will comply, and shall require any other Selling Firm with which the Agent has a contractual relationship in respect of the Distribution of the Offered Units (including, for the avoidance of doubt, the U.S. Selling Group Member) to comply, with Applicable Securities Laws in connection with the Distribution of the Offered Units including the U.S. selling restrictions imposed by the laws of the United States and set forth in Schedule "B" to this Agreement, shall ensure that each Selling Firm agrees to comply with the covenants and obligations given by the Agent herein, to the extent applicable, and shall offer the Offered Units for sale to the public in the Selling Jurisdictions directly and through Selling Firms upon the terms and conditions set out in the Prospectus and this Agreement. The Agent agrees to obtain such an agreement of each Selling Firm. The Agent has offered and will offer, and shall require any Selling Firm to offer, for sale to the public and sell the Offered Units only in those jurisdictions where they may be lawfully offered for sale or sold.
- (b) The Agent shall, and shall require any Selling Firm to agree to, distribute the Offered Units in a manner which complies with and observes all Applicable Laws in each jurisdiction into and from which they may offer to sell Offered Units or distribute the Prospectus or any Prospectus Amendment in connection with the Distribution of the Offered Units and will not, directly or indirectly, offer, sell or deliver any Offered Units or deliver the Prospectus or any Prospectus Amendment to any person in any jurisdiction other than in the Canadian Selling Jurisdictions except in a manner which will not require the Corporation to comply with the registration, prospectus, filing or other similar requirements under the Applicable Laws relating to securities of such other jurisdictions.

- (c) The Agent shall use all reasonable efforts to complete the Distribution of the Offered Units pursuant to the Prospectus as early as practicable and the Agent shall advise the Corporation in writing when, in the opinion of the Agent, the Agent has completed the Distribution of the Offered Units and within 25 days of the Closing Date provide a breakdown of the number of Offered Units distributed and proceeds received in each of the Canadian Selling Jurisdictions where such breakdown is required for the purpose of calculating fees payable to the Canadian Securities Regulators.
- (d) The Agent shall deliver a copy of the Prospectus and any Prospectus Amendment to each Purchaser.
- (e) The Agent represents and warrants to the Corporation and acknowledges that the Corporation is relying upon such representations and warranties in entering into this Agreement that:
  - (i) it is a valid and subsisting corporation, duly incorporated and in good standing under the laws of the jurisdiction in which it was incorporated;
  - (ii) it holds all licenses and permits that are required for carrying on its business in the manner in which such business has been carried on;
  - (iii) it has good and sufficient right and authority to enter into this Agreement and complete the transactions contemplated under this Agreement on the terms and conditions set forth herein;
  - (iv) all information reasonably requested by the Agent and its counsel in connection with the due diligence investigations of the Agent will be treated by the Agent and its counsel as confidential and will only be used in connection with the Offering; and
  - (v) it is an appropriately registered investment dealer under provincial securities laws, rules and regulations of the Canadian Selling Jurisdictions so as to permit it to lawfully fulfil its obligations hereunder.
- (f) The representations and warranties of the Agent contained in this Agreement shall be true at the Closing Time and they shall survive the completion of the transactions contemplated under this Agreement until the third anniversary of the Closing Date.

The Corporation understands and agrees that the Agent may arrange for Purchasers of the Offered Units in jurisdictions other than Canada and the United States, on a private placement basis and provided that the purchase of such Offered Units does not contravene the Applicable Securities Laws of the jurisdiction where the Purchaser is resident and provided that such sale does not trigger: (i) any obligation to prepare and file a prospectus, registration statement or similar disclosure document; or (ii) any registration or other obligation on the part of the Corporation including, but not limited to, any continuing obligation in that jurisdiction.

# 4. Deliveries

(a) Prior to filing the Prospectus Supplement, the Corporation shall deliver, or cause to be delivered to Agent:

- (i) a copy of the Prospectus;
- a copy of any other document required to be filed or is otherwise delivered by the Corporation in respect of the Offering under the laws of each of the Selling Jurisdictions in compliance with Applicable Securities Laws, to the extent not available on SEDAR;
- (iii) the private placement memorandum incorporating the Prospectus prepared for use in connection with the Offering for the sale of the Offered Units in the United States (the "**U.S. Memorandum**"), and, forthwith after preparation, any amendment to the U.S. Memorandum;
- (iv) copies of correspondence indicating that the application for the listing and posting for trading on the TSX of the Unit Shares, Warrants and Warrant Shares issuable in connection with the Offering (including, for greater certainty, Common Shares issued in connection with the exercise of the Compensation Warrants) have been approved for listing subject only to satisfaction by the Corporation of certain standard post-Closing conditions imposed by the TSX (the "Standard Listing Conditions"), as shall be set out in the TSX conditional approval letter in respect of the Offering (the "TSX Letter"), and which Standard Listing Conditions shall, for the avoidance of doubt, exclude any requirement for shareholder approval; and
- (v) a "long form" comfort letter dated the date of the Prospectus Supplement, in form and substance satisfactory to the Agent, addressed to the Agent from the Corporation's Auditors with respect to financial and accounting information relating to the Corporation contained in the Prospectus, which letter shall be based on a review by the Corporation's Auditors within a cut-off date of not more than two Business Days prior to the date of the letter, which letter shall be in addition to the Corporation's Auditors consent letter addressed to the Canadian Securities Regulators.

Prior to the filing of any Prospectus Amendment with the Securities Regulators, the Corporation shall deliver, or cause to be delivered, to the Agent a copy of such Prospectus Amendment signed and certified as required by Applicable Securities Laws of the Canadian Selling Jurisdictions. Concurrently with the delivery of any Prospectus Amendment, the Corporation shall deliver to the Agent and the Agent's counsel, with respect to such Prospectus Amendment, opinions, comfort letters and such other documentation substantially equivalent or similar to those referred to in this Section 4, as appropriate or reasonably requested by the Agent in the circumstances.

(b) Delivery of the Prospectus and any Prospectus Amendment shall constitute a representation and warranty by the Corporation to the Agent that, as at the date of the Prospectus or Prospectus Amendment, as the case may be: (i) all information and statements (except information and statements relating solely to the Agent and provided by the Agent) contained in the Prospectus and any Prospectus Amendments are true and correct in all material respects and contain no misrepresentation and constitute full, true and plain disclosure of all material facts relating to the Corporation and the Offered Units; (ii) no material fact or information has been omitted from such disclosure (except facts or information relating solely to the Agent and provided by the Agent) which is required to be stated in such disclosure or is necessary to make the statements or information contained in such disclosure not misleading in light of the circumstances under which they were made; (iii) such documents comply in all material respects with the requirements of the Applicable Securities Laws of the Canadian Selling Jurisdictions; and have been filed (and a receipt therefor will be obtained, if required) in each of the Canadian Selling Jurisdictions; and (iv) except as set forth or contemplated in the Prospectus or any Prospectus Amendment or as has otherwise been publicly disclosed, there has been no adverse material change (actual, anticipated, contemplated, proposed or threatened) in the business, affairs, business prospects, operations, assets, liabilities (contingent or otherwise), capital or ownership of the Corporation since the end of the period covered by the Financial Statements. Such deliveries shall also constitute the Corporation's consent to the use by the Agent and any Selling Firm of the Prospectus and any Prospectus Amendment in connection with the Distribution of the Offered Units in the Selling Jurisdictions in compliance with this Agreement and Applicable Securities Laws.

(c) The Corporation shall cause commercial copies of the Prospectus and the U.S. Memorandum to be delivered to the Agent without charge, in such numbers and in such cities as the Agent may reasonably request. Such delivery shall be effected as soon as possible and, in any event, no later than 5:00 p.m. (Toronto time) on March 13, 2017 or such other date and time as may be agreed upon by the Agent and the Corporation.

### 5. Material or Significant Change During Distribution

- (a) During Distribution of the Offered Units under the Prospectus, the Corporation shall promptly notify the Agent in writing of:
  - (i) any material change with respect to the Corporation;
  - (ii) any material fact which has arisen or has been discovered and would have been required to have been stated in the Prospectus had the fact arisen or been discovered on, or prior to, the date of the Prospectus; and
  - (iii) any change in any material fact or matter covered by a statement contained in the Prospectus or any Prospectus Amendment (collectively, the "Offering Documents") which change is, or may be, of such a nature as to render any of the Offering Documents misleading or untrue or which would result in a misrepresentation in any of the Offering Documents or which would result in the Prospectus or any Prospectus Amendment not complying with the Applicable Securities Laws or other laws of any Canadian Selling Jurisdiction.
- (b) The Corporation will comply with Section 57 of the *Securities Act* (Ontario) and with the comparable provisions of other Applicable Securities Laws in the Canadian Selling Jurisdictions, and the Corporation will prepare and will file any Prospectus Amendment, which, in the opinion of the Agent and its counsel, acting reasonably, may be necessary to continue to qualify the Offered Units and Compensation Warrants for Distribution in each of the Canadian Selling Jurisdictions.
- (c) In addition to the provisions of subsections 5(a) and 5(b), the Corporation shall, in good faith, discuss with the Agent any fact or change in circumstances (actual, anticipated, contemplated, proposed or threatened, financial or otherwise) which is of such a nature that there is reasonable doubt whether written notice need be given under this section and shall consult with the Agent with respect to the form and content of any amendment or other Prospectus Amendment proposed to be filed by the Corporation, it being understood and agreed that no such amendment or other Prospectus Amendment shall be filed with any Securities Regulator prior to the review thereof by the Agent and its counsel, acting reasonably.

### 6. Covenants of the Corporation

The Corporation hereby covenants to the Agent that the Corporation:

- (a) shall prior to the Closing Time, allow the Agent (and its counsel and consultants) to conduct all due diligence which the Agent may reasonably require or consider necessary or appropriate in order to fulfill the Agent's obligations as registrants to complete the Offering as provided herein. The Corporation will provide to the Agent (and its counsel and consultants) reasonable access to the Corporation's properties (if any), senior management personnel and corporate, financial and other records, for the purposes of conducting such due diligence. Without limiting the scope of the due diligence inquiry the Agent (or its counsel and consultants) may conduct, the Corporation shall also make available its directors, senior management and counsel to answer any questions which the Agent may have and to participate in one or more due diligence sessions to be held prior to Closing (collectively, the "Due Diligence Session"). The Agent shall distribute a list of written questions in advance of each Due Diligence Session;
- (b) shall forthwith advise the Agent of, and provide the Agent with copies of, any written communications relating to:
  - the issuance by any securities regulatory authority, including the TSX, of any order suspending or preventing the use of the Prospectus or any Prospectus Amendment or any cease trading or stop order or any halt in trading relating to the Common Shares or the institution or threat of any proceedings for that purpose; and
  - the receipt of any material communication from any securities regulatory authority, including the TSX, or other authority relating to the Prospectus or any Prospectus Amendment or the Offering;
- (c) shall use its commercially reasonable best efforts to prevent the issuance of any order referred to in (b)(i) above and, if issued, shall forthwith take all reasonable steps which it is able to take and which may be necessary or desirable in order to obtain the withdrawal thereof as soon as is reasonably practicable;
- (d) shall use its commercially reasonable best efforts to maintain its status as a "reporting issuer" (or the equivalent thereof) not in default of the requirements of the Applicable Securities Laws of each of the Canadian Selling Jurisdictions for as long as any Warrants remain outstanding, other than in a business combination or similar transaction where all the outstanding securities of the Corporation have been exchanged for cash or the securities of another issuer which is a reporting issuer under any Applicable Securities Laws;
- (e) shall use its commercially reasonable best efforts to maintain the listing of the Common Shares and the Warrants on the TSX or such other recognized stock exchange or quotation system as the Agent may approve, acting reasonably, for as long as any Warrants remain outstanding, other than in a business combination or similar transaction where all the outstanding securities of the Corporation have been exchanged for cash or the securities of another issuer which is a reporting issuer under any Applicable Securities Laws;

- (f) shall use its commercially reasonable efforts to ensure that the Unit Shares, the Warrants and the Warrant Shares (including for greater certainty any Common Shares underlying the Compensation Warrants) will be conditionally approved for listing on the TSX upon their issue;
- (g) shall use the net proceeds of the Offering contemplated herein in the manner and subject to the qualifications described in the Prospectus Supplement under the heading "Use of Proceeds"; and
- (h) shall, as soon as practicable, use its commercially reasonable efforts to receive all necessary consents to the transactions contemplated herein.

#### 7. Representations, Warranties and Covenants of the Corporation

The Corporation hereby represents and warrants to the Agent that as at the date hereof:

- (a) the Corporation has been duly incorporated, continued or amalgamated and is validly existing under the laws of its governing jurisdiction, has all requisite power and authority and is duly qualified to carry on its business as now conducted and to own or lease its properties and assets and the Corporation has all requisite corporate power and authority to carry out its obligations under this Agreement, the Warrant Indentures (upon execution and delivery thereof), the Compensation Warrant Certificates (upon execution and delivery thereof) and any other document, filing, instrument or agreement delivered in connection with the Offering, and to carry out its obligations hereunder;
- (b) no agreement is in force or effect which in any manner affects the voting or control of any of the securities of the Corporation to which the Corporation is a party or of which the Corporation is aware;
- (c) the Corporation does not beneficially own, or exercise control or direction over, 10% or more of the outstanding voting shares of any company;
- (d) all consents, approvals, permits, authorizations or filings as may be required under Applicable Securities Laws necessary for the execution and delivery of this Agreement and the sale of the Offered Units, and the consummation of the transactions contemplated hereby, have been made or obtained or will be obtained prior to the Closing Date, as applicable, subject only to the Standard Listing Conditions contained in the TSX Letter and any post-Closing notice filings required under applicable United States federal or state securities laws and standard post-closing filings with the Canadian Securities Regulators;
- (e) upon the execution and delivery thereof, each of this Agreement, the Warrant Indentures and the Compensation Warrant Certificates shall constitute a valid and binding obligation of the Corporation and each shall be enforceable against the Corporation in accordance with its terms, except as enforcement thereof may be limited by bankruptcy, insolvency, reorganization, moratorium and other laws relating to or affecting the rights of creditors generally and except as limited by the application of equitable principles when equitable remedies are sought, and by the fact that rights to indemnity, contribution and waiver, and the ability to sever unenforceable terms, may be limited by Applicable Law;

- (f) the currently issued and outstanding Common Shares are listed and posted for trading on the TSX and on the OTCQX and no order ceasing or suspending trading in the Common Shares or prohibiting the trading of any of the Common Shares has been issued and no proceedings for such purpose are pending or, to the knowledge of the Corporation, threatened;
- (g) the definitive form of certificate representing the Common Shares complies with the requirements of the *Business Corporations Act* (Ontario), complies with the requirements of the TSX Manual and does not conflict with the constating documents of the Corporation;
- (h) the Financial Statements:
  - have been prepared in accordance with international financial reporting standards in Canada consistently applied throughout the period referred to therein;
  - contain no misrepresentation and present fairly, in all material respects, the financial position (including the assets and liabilities, whether absolute, contingent or otherwise) of the Corporation as at such dates and results of operations of the Corporation for the periods then ended; and
  - (iii) contain and reflect adequate provision or allowance for all reasonably anticipated liabilities, expenses and losses of the Corporation,

and there has been no change in accounting policies or practices of the Corporation since December 31, 2015;

- the Corporation has not declared or paid any dividends or declared or made any other payments or Distributions on or in respect of any of the Common Shares and has not, directly or indirectly, redeemed, purchased or otherwise acquired any of its securities or agreed to do so or otherwise effected any return of capital with respect to such securities;
- (j) all taxes (including income tax, capital tax, payroll taxes, employer health tax, workers' compensation payments, property taxes, custom and land transfer taxes), duties, royalties, levies, imposts, assessments, deductions, charges or withholdings and all liabilities with respect thereto including any penalty and interest payable with respect thereto (collectively, "Taxes") due and payable by the Corporation have been paid except where the failure to pay such taxes would not have a Material Adverse Effect. All tax returns, declarations, remittances and filings required to be filed by the Corporation have been filed with all appropriate governmental authorities and all such returns, declarations, remittances and filings are complete and accurate and no material fact or facts have been omitted therefrom which would make any of them misleading except where such failure would not have a Material Adverse Effect. The Corporation have tax return of the Corporation currently in progress and the Corporation is not aware of any facts that could give rise to any such examination and there are no issues or disputes outstanding with any governmental authority respecting any Taxes that have been paid, or may be payable, by the Corporation except:

- (i) where such examinations would not have a Material Adverse Effect; or
- (ii) as disclosed in Note 7 of the Interim Financial Statements;
- (k) the Scientific Research and Experimental Development ("SR&ED") credits receivable described in the Offering Documents and any other SR&ED credits otherwise applied for by the Corporation are based on underlying work, expenses and claims of the Corporation giving rise to such SR&ED credits which satisfy the requirements of the *Income Tax Act*(Canada) in order for the Corporation to claim or have claimed such SR&ED credits, and to the knowledge of the Corporation there are no facts, circumstances or basis upon which the applicable taxing authority could reject, disallow, adversely reassess or deny the Corporation any such SR&ED credits, except:
  - (i) as disclosed in Note 7 of the Interim Financial Statements; or
  - (ii) as otherwise disclosed to the Agent in writing;
- (l) the Corporation's Auditors, which are the auditors who audited the Audited Financial Statements and who provided their audit report thereon, are independent public accountants under Applicable Securities Laws of the Canadian Selling Jurisdictions and there has never been a "reportable disagreement" (within the meaning of NI 51-102) between the Corporation and the Corporation's Auditors;
- (m) the Corporation maintains a system of internal accounting controls sufficient to provide reasonable assurance that:
  - (i) transactions are executed in accordance with management's general or specific authorization;
  - transactions are recorded as necessary to permit preparation of financial statements in conformity with international financial reporting standards and to maintain accountability for assets;
  - (iii) access to assets is permitted only in accordance with management's general or specific authorization; and
  - (iv) the recorded accountability for assets is compared with existing assets at reasonable intervals and appropriate action is taken with respect to any differences;
- (n) the Corporation is in compliance with the certification requirements contained in National Instrument 52-109 *Certification of Disclosure in Issuers' Annual and Interim Filings* of the Canadian Securities Administrators with respect to the Corporation's annual and interim filings with Canadian Securities Regulators;
- (o) the audit committee of the Corporation is comprised and operates in accordance with the requirements of National Instrument 52-110 *Audit Committees* of the Canadian Securities Administrators;

- (p) except for the Warrants, the Compensation Warrants and as set forth in Schedule "A" to this Agreement, no holder of outstanding securities of the Corporation will be entitled to any pre-emptive or any similar rights to subscribe for any of the Common Shares or other securities of the Corporation, and no rights, warrants or options to acquire, or instruments convertible into or exchangeable for, any shares in the capital of the Corporation are outstanding;
- (q) all information which has been prepared by the Corporation relating to the Corporation and its business, properties and liabilities that is or has been publicly disclosed or otherwise provided to the Agent or its counsel, including any investor or corporate presentations posted on the Corporation's website, and all financial, marketing, sales and operational information, is, as of the date of such information, true and correct in all material respects, contains no misrepresentation and no fact or facts have been omitted therefrom which would make such information misleading;
- (r) except as properly disclosed in the Offering Documents, the Corporation has not approved, has not entered into any agreement in respect of, and to the knowledge of the Corporation there are no facts or circumstances in respect of:
  - the purchase of any material property or assets or any interest therein or the sale, transfer or other disposition of any material property or assets or any interest therein currently owned, directly or indirectly, by the Corporation whether by asset sale, transfer of shares or otherwise;
  - (ii) the issuance of any securities of the Corporation or a right of first refusal with respect to the issuance by the Corporation of any securities;
  - any change in control of the Corporation (whether by sale, transfer or other disposition of shares or sale, transfer, lease or other disposition of all or substantially all of the property and assets of the Corporation);
  - (iv) a proposed or planned disposition of shares by any shareholder who owns, directly or indirectly, 10% or more of the outstanding shares of the Corporation; or
  - (v) an agreement in force or having the effect of which in any manner affects or will affect the voting or control of any of the securities of the Corporation;
- (s) no legal or governmental proceedings are pending to which the Corporation is a party or to which its property is subject that would result individually or in the aggregate in a Material Adverse Effect and, to the knowledge of the Corporation, no such proceedings have been threatened against, or are contemplated with respect to, the Corporation or its properties;
- (t) the Corporation is the legal and beneficial owner, free of all mortgages, liens, charges, pledges, security interests, encumbrances, claims or demands whatsoever, of the interests in personal property referred to as owned by it in the Prospectus, and all material agreements under which the Corporation holds an interest in personal property are in good standing according to their terms;

- (u) the minute books and records of the Corporation made available to counsel for the Agent in connection with its due diligence investigations of the Corporation are all of the minute books and records of the Corporation and contain copies of all material proceedings of the shareholders, the board of directors and all committees of the board of directors of the Corporation to the date of review of such corporate records and minute books, and there have been no other meetings, resolutions or proceedings of the shareholders, board of directors or any committees of the board of directors of the Corporation not reflected in such minute books and other records;
- (v) the Corporation is, and will be at the Closing Time, an Eligible Issuer and a reporting issuer under Applicable Securities Laws in the Canadian Selling Jurisdictions, and the Corporation is not in default in any material respect of any requirement of Applicable Securities Laws and the Corporation is not included in a list of defaulting reporting issuers maintained by the applicable Securities Regulators. In particular, without limiting the foregoing, the Corporation is in compliance at the date hereof with its obligations to make timely disclosure of all material changes relating to it and, since January 1, 2015, no such disclosure has been made on a confidential basis and there is no material change relating to the Corporation which has occurred and with respect to which the requisite material change statement has not been filed, except to the extent that the Offering and the transactions contemplated thereunder may constitute a material change;
- (w) the execution and delivery of each of this Agreement, the Warrant Indentures and the Compensation Warrant Certificates and the compliance with all provisions contemplated thereunder, the Offering and sale of the Offered Units and the issuance of the Offered Units and the Compensation Warrants does not and will not:
  - require the consent, approval, authorization, registration or qualification of or with any governmental authority, stock exchange, securities regulatory authority or other third party (in each case in the Selling Jurisdictions), except: (A) such as have been obtained; or (B) such as may be required and will be obtained by the Closing Time;
  - (ii) result in a breach of, or default under, nor create a state of facts which, after notice or lapse of time or both, would result in a breach of or default under, nor conflict with:
    - (A) any of the terms, conditions or provisions of the constating documents or resolutions of the shareholders, board of directors or any committee of the board of directors of the Corporation;
    - (B) any Applicable Law applicable to the Corporation, including, without limitation, the Applicable Securities Laws, or any judgment, order or decree of any governmental body, agency or court having jurisdiction over the Corporation; or
    - (C) any Material Agreement; or
  - give rise to any lien, charge or claim in or with respect to the properties or assets now owned or hereafter acquired by the Corporation or the acceleration of or the maturity of any debt under any indenture, mortgage, lease, agreement or instrument binding or affecting the Corporation or any of its properties;

- (x) the authorized capital of the Corporation consists of an unlimited number of Common Shares of which (as of March 9, 2017) 166,511,446 Common Shares are issued and outstanding as fully paid and non-assessable;
- (y) other than as contemplated hereby, there is no person acting or purporting to act at the request or on behalf of the Corporation that is entitled to any brokerage or finder's fee in connection with the Offering;
- (z) all material disclosure filings required to be made by the Corporation pursuant to Applicable Securities Laws from January 1, 2015 have been made and such disclosure and filings contained no material misrepresentation as at the respective dates thereof;
- (aa) all forward-looking information and statements of the Corporation contained in the Prospectus and the assumptions underlying such information and statements, subject to any qualifications contained therein, including any forecasts and estimates, expressions of opinion, intention and expectation, as at the time they were or will be made, were or will be made or based on assumptions that are reasonable;
- (bb) the statistical, industry and market related data included in the Prospectus are derived from sources which the Corporation reasonably believes to be accurate, reasonable and reliable, and such data agrees in all material respects with the sources from which it was derived;
- (cc) the Corporation is not aware of any legislation, or proposed legislation (published by a legislative body), which it anticipates will materially and adversely affect the business, affairs, operations, assets, liabilities (contingent or otherwise) or prospects of the Corporation;
- (dd) the Corporation is in material compliance with all Applicable Laws respecting employment and employment practices, terms and conditions of employment, pay equity and wages, except where non-compliance with such laws could not reasonably be expected to have a Material Adverse Effect, and has not and is not engaged in any unfair labour practice;
- (ee) except as properly disclosed in the Offering Documents, there has not been and there is not currently any labour disruption or conflict which could reasonably be expected to have a Material Adverse Effect;
- (ff) the Corporation does not have any loans or other indebtedness outstanding which have been made to any of its officers, directors or employees, past or present, any known holder of more than 10% of any class of shares of the Corporation, or any person not dealing at arm's length with the Corporation that are currently outstanding;
- (gg) except as disclosed in the Disclosure Record, none of the directors, officers or employees of the Corporation, any known holder of more than 10% of any class of shares of the Corporation, or any associate or affiliate of any of the foregoing persons, had or has any material interest, direct or indirect, in any transaction or any proposed transaction that was or is material to the Corporation;
- (hh) the Corporation maintains insurance covering the properties, operations, personnel and businesses of the Corporation as the Corporation reasonably deems adequate; such insurance insures against such losses and risks to an extent which is adequate in the reasonable opinion of management of the Corporation to protect the Corporation and the business of the Corporation; all such insurance is fully in force on the date hereof and will be fully in force on the Closing Date; and the Corporation has no reason to believe that it will not be able to renew any such insurance as and when such insurance expires;

- (ii) the Corporation (i) is in compliance with any and all Applicable Laws relating to the protection of human health and safety, the environment or hazardous or toxic substances or wastes, pollutants or contaminants ("Environmental Laws"), (ii) has received all permits, licenses or other approvals required under applicable Environmental Laws to conduct its business, (iii) is in compliance with all terms and conditions of any such permit, license or approval, (iv) to the knowledge of the Corporation, there have been no past, and there are no pending or threatened claims, complaints, notices or requests for information received by the Corporation with respect to any alleged material violation of any Environmental Law, and (v) to the knowledge of the Corporation, no conditions exist at, on or under which, with the passage of time, or the giving of notice or both, would give rise to liability under any Environmental Law; except where such non-compliance, failure to receive a permit, licence or other approval, claim or condition would not, singly or in the aggregate, have or would be expected to have a Material Adverse Effect on the Corporation;
- no order, ruling or determination having the effect of suspending the sale or ceasing the trading in any securities of the Corporation has been issued by any securities regulatory authority and is continuing in effect and no proceedings for that purpose have been instituted or, to the knowledge of the Corporation, are pending, contemplated or threatened by any securities regulatory authority;
- (kk) the Corporation has not made any loans to, or guaranteed the obligations of, any person;
- (II) with respect to each of the premises of the Corporation which is material to the Corporation and which the Corporation occupies as tenant (the "Leased Premises"), the Corporation has the right to occupy and use such Leased Premises, and each of the leases pursuant to which the Corporation occupies the Leased Premises are in good standing and in full force and effect, and neither the Corporation nor any other party thereto is in breach of any material covenants, conditions or obligations contained therein;
- (mm) there have not been and there are not currently any material disagreements with any of the employees of the Corporation which are adversely affecting the carrying on of the business of the Corporation;
- (nn) there is no action, suit, proceeding, inquiry or investigation before or brought by any court or governmental agency or body, domestic or foreign, including, for the avoidance of doubt, any Regulatory Authority, now pending or threatened against or affecting the Corporation, which would cause a Material Adverse Effect;
- (oo) the Transfer Agent at its principal offices in the City of Toronto has been duly appointed as registrar and transfer agent for the Common Shares;
- (pp) neither the Corporation, nor to the knowledge of the Corporation, any director, officer, agent, employee or other person associated with or acting on behalf of the Corporation has: (i) used any corporate funds for any unlawful contribution, gift, entertainment or other unlawful expense relating to political activity; (ii) made any direct or indirect unlawful payment to any foreign or domestic government official or employee from corporate funds; (iii) violated any applicable anti-bribery, export control and economic sanctions laws including any provision of the *Corruption of Foreign Officials Act* (Canada) or the *United States Foreign Corrupt Practice Act*; or (iv) made any bribe, rebate, payoff, influence payment, kickback or other unlawful payment;

- (qq) the Corporation holds all of the permits, licenses and like authorizations necessary for it to carry on its business in each jurisdiction where such business is carried on that are material to the conduct of the business of the Corporation (as such business is currently conducted), including, but not limited to, permits, licenses and like authorizations from Regulatory Authorities (collectively, the "Material Permits"); all such Material Permits which are so required are valid and subsisting and in good standing and none of the same contains any term, provision, condition or limitation which has or would reasonably be expected to affect or restrict in a materially adverse manner the operation of the business of the Corporation, as now carried on or proposed to be carried on, as set out in the Prospectus, and the Corporation is not in breach thereof or in default with respect to filings to be effected or conditions to be fulfilled in order to maintain such Material Permits in good standing;
- (rr) the Corporation is and at all times has been in material compliance with each Material Permit held by it and is not in violation of, or in default under, any such Material Permit in any material respect, except in any case where the Corporation has received a valid and effective waiver of such violation or default;
- (ss) all clinical studies, tests and trials being conducted by or on behalf of the Corporation that have been or will be submitted to any governmental entity, including any Regulatory Authority, including in Canada, the European Union and Asia, in connection with any Material Permits, are being or have been conducted by the Corporation or, to the knowledge of the Corporation, are being or have been conducted on behalf of the Corporation, in compliance in all material respects with applicable experimental protocols, procedures and controls pursuant to generally accepted professional scientific standards and applicable local, provincial, state, federal and foreign legal requirements, rules and regulations (including Applicable Laws administered by the Regulatory Authorities);
- (tt) the results of the clinical studies, tests and trials being conducted by or on behalf of the Corporation described in the Prospectus are accurate and complete in all material respects and, to the knowledge of the Corporation, there are no other trials, studies or tests, the results of which could reasonably call into question the results described or referred to in the Prospectus; and the Corporation has not received any notices or other correspondence from such Regulatory Authorities or any other governmental agency or any other person requiring the termination, suspension or material modification of any research, pre-clinical and clinical validation studies or other studies and tests that are described in the Prospectus or the results of which are referred to therein;
- (uu) except (a) with respect to intellectual property to which ownership is not statutorily protected, (b) reversionary and moral rights, and (c) for the Intellectual Property identified in Schedule "D", the Corporation is the sole legal and beneficial owner of, has good and marketable title to, and owns all worldwide right, title and interest in and to all Corporation IP free and clear of all encumbrances, charges, covenants, conditions, options to purchase and restrictions or other adverse claims or interest of any kind or nature, and the Corporation has no knowledge of any claim of adverse ownership in respect thereof;

- (vv) Schedule "C" to this Agreement contains, among other things, a true and complete list of all active (including reinstatable) applied for and registered patents and trademarks owned by the Corporation;
- (ww) to the Corporation's knowledge, there is no Intellectual Property, other than the Intellectual Property which the Corporation owns and licenses, that is required to permit the Corporation to substantially carry on its present business as described in the Prospectus, and the Corporation is not aware of any Intellectual Property owned by another person that is required to permit the Corporation to substantially carry on its business as described in the Prospectus and to which the Corporation knows it cannot obtain a license;
- (xx) the licenses identified at Schedule "D" do not materially impede, restrict or prevent the conduct of the business of the Corporation as described in the Prospectus;
- (yy) the Corporation has not received any notice or claim (whether written, oral or otherwise) challenging the Corporation's ownership or right to use any of the Corporation IP or suggesting that any other person has any claim of legal or beneficial ownership or other claim or interest with respect thereto, nor, to the knowledge of the Corporation, is there a reasonable basis for any claim that any person other than the Corporation has any claim of legal or beneficial ownership or other claim or interest in any of the Corporation IP, except for the Intellectual Property identified in Schedule "D";
- (zz) all active Applied for Corporation IP and active Registered Corporation IP is, to the knowledge of the Corporation, in good standing, is recorded in the name of the Corporation and has been filed in a timely manner in the appropriate offices to preserve the rights thereto (if any) and, in the case of a provisional application, the Corporation confirms that all right, title and interest in and to the potential invention(s) disclosed in such application have been or as of the Closing Date will be assigned in writing (without any express right to revoke such assignment) to the Corporation. To the knowledge of the Corporation, there has been no public disclosure, sale or offer for sale by the Corporation of any invention described in each of the Corporation IP anywhere in the world that would prevent the valid issue of a registration from that Corporation IP in the corresponding jurisdiction;
- (aaa) all material prior art or other information known to the Corporation relating to the Corporation IP has been disclosed to the appropriate offices if and to the extent such disclosure is required to comply with the Applicable IP Laws in the jurisdictions where the corresponding applications are pending;
- (bbb) to the knowledge of the Corporation, all active Registered Corporation IP has been filed, prosecuted and obtained in accordance with the corresponding Applicable IP Laws and is currently in effect and in compliance with such Applicable IP Laws;
- (ccc) to the knowledge of the Corporation, and except for (a) provisional patent applications which were filed more than one year ago, and (b) any inactive Intellectual Property identified in Schedule "C", no Applied for Corporation IP or Registered Corporation IP has expired, become abandoned, been cancelled or expunged, or has lapsed for failure to be renewed or maintained;

- (ddd) to the knowledge of the Corporation, the conduct of the business of the Corporation (including, without limitation, the use or other exploitation of the Corporation IP by the Corporation or other licensees) has not infringed, violated or misappropriated any Intellectual Property right of any person;
- (eee) the Corporation is not a party to any legal action or legal proceeding, nor has the Corporation received notice of any legal action or legal proceeding being threatened, that alleges that any current or proposed conduct of the Corporation's business (including, without limitation, the use or other exploitation of any Corporation IP by the Corporation or any customers, distributors or other licensees) has or will infringe, violate or misappropriate any Intellectual Property right of any person;
- (fff) to the knowledge of the Corporation, no person has infringed upon, misappropriated, illegally exported, or violated any of the Corporation's rights in the Corporation IP;
- (ggg) the Corporation has entered into agreements pursuant to which the Corporation has been granted licenses or permissions to one or more of make, use, reproduce, sub license, manufacture, sell, modify, update, enhance or otherwise exploit the Licensed IP to the extent required to operate the business of the Corporation currently conducted (including, if required, the right to incorporate such Licensed IP into the Corporation's products) as described in the Prospectus. All of the agreements granting licenses to the patents that are material to the Corporation's business are listed on Schedule "E" hereof, have not expired or been terminated, and neither the Corporation nor, to the knowledge of the Corporation, any other party is in default of its obligations under such agreements;
- (hhh) to the extent that any of the non-publicly disclosed Corporation IP is disclosed to any person or any person has access to such Corporation IP (including, without limitation, any employee, officer, shareholder or consultant of the Corporation), the Corporation has entered into an agreement which contains customary terms and conditions with respect to the use and disclosure of such Corporation IP. Where such agreements have not expired or have not been terminated, in each case in accordance with their respective terms, neither the Corporation nor, to the knowledge of the Corporation, any other person is in default of its obligations thereunder with respect to the terms and conditions relating to use and disclosure of Corporation IP;
- the Corporation has taken all actions that it is contractually obligated to take and all actions that are customary and reasonable to protect the confidentiality of the Corporation IP that it treats as confidential;
- (jjj) to the knowledge of the Corporation, it is not, and will not be, necessary for the Corporation to utilize any Intellectual Property owned by or in possession of any of its employees that was made prior to their employment with the Corporation in a manner that is in violation of the rights of such employee or the rights of his or her prior employers;
- (kkk) the Corporation has not received any opinion from its legal counsel that any of the active Registered Corporation IP or Applied for Corporation IP is clearly, but not as a result of any prior art, invalid, unregistrable, or unenforceable in the case of Registered Corporation IP;

- (III) the Corporation has not received any grant relating to research and development which is subject to repayment in whole or in part or to conversion to debt upon sale of any Common Shares or which may affect the right of ownership of the Corporation in the Corporation IP;
- (mmm) the Corporation requires each of its employees and consultants to execute a non- disclosure agreement containing customary terms and conditions for agreements of this nature, and all current employees and consultants of the Corporation have executed such agreement and, to the knowledge of the Corporation, all past employees and consultants of the Corporation have executed such agreement;
- (nnn) all of the present and past employees of the Corporation, and all of the present and past consultants, contractors and agents of the Corporation performing services relating to the conception, discovery, making or development of the Corporation IP, have entered into a written agreement assigning or requiring assignment to the Corporation of, or confirming that the Corporation owns all right, title and interest in and to all such Intellectual Property and, with respect to any Corporation IP in which moral rights subsist, waiving all moral rights in such Intellectual Property in favour of the Corporation;
- (000) any and all fees or payments required to keep the Registered Corporation IP and, to the knowledge of the Corporation, the registered Licensed IP active have been paid, except those which the Corporation has decided to let lapse;
- (ppp) there are no ongoing Intellectual Property disputes, settlement negotiations, settlement agreements or communications relating to the foregoing between the Corporation and any other persons relating to or potentially relating to the business of the Corporation which have not been resolved;
- (qqq) the Corporation has conducted and is conducting its business in compliance in all material respects with all Applicable Laws of each jurisdiction in which it carries on business and has not received a notice of non-compliance, nor knows of, nor has reasonable grounds to know of, any facts that could give rise to a notice of non- compliance with any such Applicable Laws which would have a Material Adverse Effect;
- (rrr) except pursuant to the licenses identified in Schedule "D", the Corporation is not aware of any reason why it would not be entitled to make use of or commercially exploit the Corporation IP. With respect to each license that is material to its business in the agreements identified in Schedule "E" by which the Corporation has obtained the rights to exploit, in any way, the Licensed IP rights or by which the Corporation has granted to any third party the right to so exploit such Licensed IP:
  - such license is in operation and enforceable in accordance with its terms, except to the extent that enforceability may be limited by: (A) applicable bankruptcy, insolvency, reorganization, moratorium, and other laws of general application affecting enforcement of creditors' rights generally; or (B) laws relating to the availability of specific performance, injunctive relief, or other equitable remedies, and no event of default has occurred and is continuing under any such license or agreement;

- (ii) (A) the Corporation has not received any notice of termination or cancellation under such license, and no party thereto has any right of termination or cancellation thereunder except in accordance with its terms; (B) the Corporation has not received any notice of a breach or default under such license which breach or default has not been cured; and (C) the Corporation has not granted to any other person any rights contrary to, or in conflict with, the terms and conditions of such license;
- the Corporation is not aware of any other party to such license or agreement that is in breach or default thereof, and is not aware of any event that has occurred that, with notice or lapse of time would constitute such a breach or default or permit termination, modification or acceleration under such license or agreement;
- (sss) for each taxable year, if any, that the Corporation qualifies as a "passive foreign investment corporation" (a "PFIC"), as defined in Section 1297(a) of the Internal Revenue Code of 1986, as amended (the "Code"), in the case of a Purchaser of Offered Units that is a "United States person," as defined in Section 7701(a)(30) of the Code, and that is making or has made an effective "qualified electing fund" election, as defined in Section 1295 of the Code with respect to the Corporation (a "QEF Election"), the Corporation will provide to such Purchaser, upon written request: (a) a "PFIC Annual Information Statement" as described in Treasury Regulation Section 1.1295-1(g) (or any successor Treasury Regulation), including all representations and statements required by such PFIC Annual Information Statement; and (b) all additional information that such Purchaser is required to obtain in connection with making or maintaining a QEF Election. The Corporation statement, (i) except as otherwise requested by any particular Purchaser, the Corporation must provide a PFIC Annual Information Statement described in Treasury Regulation Section 1.1295-1(g)(1)(ii)(A) or (B); and (ii) as permitted by Treasury Regulation Section 1.1293-1(a)(2)(A), the Corporation will calculate and report the amount of each category of long-term capital gain described in Section 1(h) of the Code that was recognized by the Corporation. The Corporation may elect to provide such information (including its PFIC Annual Information Statement) on its website;
- (ttt) none of the Corporation nor any of its predecessors has had the registration of a class of securities under the U.S. Exchange Act revoked by the United States Securities Exchange Commission pursuant to Section 12(j) of the U.S. Exchange Act and any rules or regulations promulgated thereunder;
- (uuu) the operations of the Corporation are and have been conducted at all times in compliance with, in each case to the extent applicable, the financial recordkeeping and reporting requirements of the *United States Currency and Foreign Transactions Reporting Act of 1970*, as amended, the *Proceeds of Crime (Money Laundering)* and *Terrorist Financing Act (Canada)*, the anti-money laundering statutes of all jurisdictions, the rules and regulations thereunder and any related or similar rules, regulations or guidelines, issued, administered or enforced by any governmental agency (collectively, the "Anti-Money Laundering Laws"), and no action, suit or proceeding by or before any court or governmental agency, authority or body or any arbitrator involving the Corporation with respect to the Anti-Money Laundering Laws is pending or, to the knowledge of the Corporation, threatened; and

(vvv) neither the Corporation, nor, to the knowledge of the Corporation, any director, officer, agent, employee or affiliate of the Corporation is currently subject to any U.S. sanctions administered by the Office of Foreign Assets Control of the U.S. Treasury Department ("OFAC") and the Corporation will not directly or indirectly use the proceeds of the Offering, or lend, contribute or otherwise make available such proceeds to any subsidiary, joint venture partner or other person or entity, for the purpose of financing the activities of any person currently subject to any U.S. sanctions administered by OFAC.

### 8. Closing

The purchase and sale of the Offered Units shall be completed at the Closing Time at the offices of counsel to the Corporation, Borden Ladner Gervais LLP, Toronto, Ontario, or at such other place or places as the Agent and the Corporation may agree. At the Closing Time, the Corporation shall (a) deliver to the Agent one or more global certificates representing the Unit Shares and Warrants, respectively, sold pursuant to the Offering registered in the name of CDS Clearing and Depositary Services Inc., or its nominee ("CDS"), or otherwise effect or cause to be effected one or more electronic deposit(s) pursuant to the non-certificated issue system maintained by CDS such quantity of Offered Units as the Agent may direct the Corporation in writing, and (b) with respect to Purchasers in the United States only, deliver to the Agent physical certificates representing the Corporation for the Offered Units by certified cheque, bank draft or wire transfer. The payment by the Agent to the Corporation will be net of the Agency Fee and net of amounts payable to the Agent's legal counsel, Baker & McKenzie LLP, and out-of-pocket expenses of the Agent incurred in connection with the Offering (which expenses shall be borne by the Corporation), as more fully set out in Section 13. In addition, the Corporation shall, at the Closing Time, issue to the Agent the Compensation Warrants by execution and delivery to the Agent of the Compensation Warrant Certificates.

### 9. Closing Conditions

The Agent's obligation to complete the Closing at the Closing Time shall be subject to the accuracy of the representations and warranties of the Corporation contained in this Agreement as of the date of this Agreement and as of the Closing Date, the performance by the Corporation of its obligations under this Agreement and the following conditions:

- (a) the Agent shall have received an opinion, dated the Closing Date, of the Corporation's Canadian counsel, Borden Ladner Gervais LLP, and any other local counsel, in form and substance satisfactory to the Agent, acting reasonably (it being understood that such counsel may rely to the extent appropriate in the circumstance: (i) as to matters of fact, on certificates of the Corporation executed on its behalf by a senior officer of the Corporation and on certificates of the Transfer Agent, as to the issued capital of the Corporation; and (ii) as to matters of fact not independently established, on certificates of public officials) with respect to the following matters (with such opinions being subject to usual and customary assumptions and qualifications, including the qualifications set out below):
  - as to the incorporation and subsistence of the Corporation under the laws of the Province of Ontario and as to the corporate power of the Corporation to carry out its obligations under this Agreement and to issue the Offered Units and the Compensation Warrants;

- 26 -
- (ii) as to the authorized and issued capital of the Corporation;
- that the Corporation has all requisite corporate power and authority under the laws of its jurisdiction of incorporation to carry on its business and to own or lease its properties and assets as described in the Prospectus;
- that none of the execution and delivery of this Agreement, the Warrant Indentures and the Compensation Warrant Certificates and the performance by the Corporation of its obligations hereunder, or the sale or issuance of the Offered Units and the Compensation Warrants will conflict with or result in any breach of the articles or by-laws of the Corporation;
- (v) that each of this Agreement, the Warrant Indentures and the Compensation Warrant Certificates has been duly authorized and executed and delivered by the Corporation, and constitutes a valid and legally binding obligation of the Corporation enforceable against it in accordance with its terms, except as enforcement thereof may be limited by bankruptcy, insolvency, liquidation, reorganization, moratorium or similar laws affecting the rights of creditors generally and except as limited by the application of equitable principles when equitable remedies are sought, and the qualification that the enforceability of rights of indemnity and contribution may be limited by Applicable Law;
- (vi) all necessary corporate action has been taken by the Corporation to authorize the execution and delivery of the Prospectus and any Prospectus Amendment and the filing of such documents as are required under Applicable Securities Laws in each of the Canadian Selling Jurisdictions;
- (vii) no consent, approval, authorization or order of or filing, registration or qualification with any court, governmental agency or body or securities regulatory authority having jurisdiction is required at this time for the execution and delivery by the Corporation of this Agreement, the Warrant Indentures or the Compensation Warrant Certificates and the performance of its obligations hereunder and thereunder, except for such as have been made or obtained;
- (viii) that the Unit Shares (including for greater certainty the Common Shares issuable on the exercise of the Compensation Warrants) have been validly issued as fully paid and non-assessable securities in the capital of the Corporation;
- (ix) that the Warrants and Compensation Warrants have been duly and validly created and issued;
- (x) that the Warrant Shares have been authorized and allotted for issuance to the Agent and, upon the issuance of the Warrant Shares following due exercise of the Warrants in accordance with the respective terms thereof, the Warrant Shares will be validly issued as fully paid and non-assessable securities in the capital of the Corporation;
- (xi) all approvals, permits, consents, orders and authorizations have been obtained, all necessary documents have been filed and all other legal requirements have been fulfilled under Applicable Securities Laws of the Canadian Selling Jurisdictions to qualify the issuance or Distribution and sale of the Offered Units to the public in each of the Canadian Selling Jurisdictions and the Compensation Warrants to the Agent and to permit the issuance, sale and delivery of such Offered Units to the public through dealers registered under the Applicable Laws of each of the Canadian Selling Jurisdictions who have complied with the relevant provisions of such laws and the terms of their registration;

- (xii) subject to the qualifications, assumptions, limitations and understandings set out therein, the statements set out in the Prospectus, under the heading "Eligibility for Investment" are true and correct as at the date of the Prospectus;
- (xiii) that the attributes of the Common Shares conform in all material respects with the description thereof contained in the Prospectus;
- (xiv) that the Offering has been conditionally accepted by the TSX; and
- (xv) as to such other matters as the Agent's legal counsel may reasonably request prior to the Closing Time;
- (b) if any sales of Offered Units have been effected in the United States, the Agent shall have received a legal opinion addressed to the Agent from United States local counsel, dated as of the Closing Date, in form and substance satisfactory to the Agent, acting reasonably, to the effect that, subject to customary assumptions, the offer and sale of the Offered Units in accordance with Schedule "B" are not required to be registered under the U.S. Securities Act;
- (c) the Agent shall have received the Unit Shares, the Warrants and the Compensation Warrants (in physical or electronic form, subject to compliance with Applicable Securities Laws, and as the Agent may advise);
- (d) the Agent shall have received an incumbency certificate dated the Closing Date including specimen signatures of the President and Chief Executive Officer, the Chief Financial Officer and any other officer of the Corporation signing this Agreement or any document delivered hereunder;
- (e) the Agent shall have received a certificate dated the Closing Date of the President and Chief Executive Officer and the Chief Financial Officer of the Corporation or other officers of the Corporation acceptable to the Agent, to the effect that, to the best of their knowledge, information and belief, after due inquiry and without personal liability:
  - (i) the representations and warranties of the Corporation contained in this Agreement are true and correct in all respects as if made at and as of the Closing Time;
  - the Corporation has complied with and satisfied the covenants, terms and conditions of this Agreement on its part to be complied with and satisfied up to the Closing Time;
  - (iii) the constating documents of the Corporation delivered at Closing are full, true and correct copies, unamended, and in effect on the date thereof;

- the minutes or other records of various proceedings and actions of the Corporation's board of directors relating to the Offering and delivered at Closing are full, true and correct copies thereof and have not been modified or rescinded as of the date thereof;
- (v) no order, ruling or determination having the effect of suspending the sale or ceasing the trading of the Common Shares or any other securities of the Corporation has been issued by any stock exchange, securities commission or securities regulatory authority and is continuing in effect and no proceedings for that purpose have been instituted or are pending;
- (vi) since the respective dates as of which information is given in the Prospectus as amended by any Prospectus Amendment: (A) there has been no material change (actual, anticipated, contemplated, proposed or threatened, whether financial or otherwise) in the business, financial condition, affairs, operations, business prospects, assets, liabilities or obligations (contingent or otherwise) or capital of the Corporation; and (B) other than the Offering and except as disclosed in the Prospectus and the Documents Incorporated by Reference therein or any Prospectus Amendment, as the case may be, no transaction has been entered into by the Corporation which constitutes a material change as defined in Applicable Securities Laws of the Canadian Selling Jurisdictions;
- (vii) none of the documents filed with applicable securities regulatory authorities since January 1, 2015, contained a misrepresentation as at the time the relevant document was filed that has not since been corrected; and
- (viii) there are no contingent liabilities affecting the Corporation which are material to the Corporation, other than as disclosed in the Prospectus and the Documents Incorporated by Reference therein or any Prospectus Amendment, as the case may be.
- (f) the Agent shall have received a "long form" comfort letter dated the Closing Date, in form and substance satisfactory to the Agent from the Corporation's Auditors confirming the continued accuracy of the comfort letter to be delivered to the Agent pursuant to subsection 4(a)(v) with such changes as may be necessary to bring the information in such letter forward to a date not more than two Business Days prior to the Closing Date, which changes shall be acceptable to the Agent;
- (g) the Corporation's board of directors shall have authorized and approved the execution and delivery of this Agreement, the Warrant Indentures and the Compensation Warrant Certificates, the allotment, issuance and delivery of the Unit Shares and the creation and issuance of the Warrants and Compensation Warrants and, upon the due exercise of the Warrants (including, for greater certainty, any Common Shares issuable on the exercise of the Compensation Warrants), the allotment, issuance and delivery of the Warrant Shares, and all matters relating thereto;
- (h) the Corporation shall not have received any notice from the TSX that the Unit Shares, Warrants or Warrant Shares (including for greater certainty any Common Shares issuable on the exercise of the Compensation Warrants) shall not be accepted for listing on the TSX;

- (i) that final acceptance of the Offering by the TSX shall be subject only to the fulfilment of Standard Listing Conditions;
- the Agent shall have received confirmation from the Corporation that the Corporation is not on the defaulting issuer's list (or equivalent) maintained by the Canadian Securities Regulators in the Canadian Selling Jurisdictions;
- (k) the Agent shall have received a certificate of good standing or equivalent thereof in respect of the Corporation;
- (l) the Agent and its counsel shall have been provided with all information and documentation reasonably requested relating to their due diligence inquiries and investigations;
- (m) the Corporation will have made and/or obtained the necessary filings, approvals, consents and acceptances of the appropriate securities regulatory authorities required to be made or obtained by the Corporation in connection with the sale of the Offered Units to the Purchasers prior to the Closing Time; as herein contemplated, it being understood that the Agent shall do all that is reasonably required to assist the Corporation to fulfil this condition, subject only to the Standard Listing Conditions and any post-Closing notice filings required under applicable United States federal or state securities laws; and
- (n) the Agent shall have received a certificate from the Transfer Agent as to the number of Common Shares issued and outstanding as at a date no more than two Business Days prior to the Closing Date.

The Corporation agrees that the aforesaid legal opinions and certificates to be delivered at the Closing Time will be addressed to the Agent and the Agent's counsel.

## 10. All Terms to be Conditions

The Corporation agrees that the conditions contained in this Agreement, including those terms in Section 9, will be construed as conditions and any breach or failure to comply with any of the conditions shall entitle the Agent to terminate its obligations hereunder by written notice to that effect given to the Corporation at or prior to the Closing Time. It is understood that the Agent may waive, in whole or in part, or extend the time for compliance with, any of such terms and conditions without prejudice to the rights of the Agent in respect of any such terms and conditions or any other or subsequent breach or non-compliance of the Corporation, provided that to be binding on the Agent, any such waiver or extension must be in writing and signed by the Agent.

### 11. Rights of Termination

Without limiting any of the other provisions of this Agreement, the Agent will be entitled, at its option, to terminate and cancel, without any liability on its part or on the part of the Purchasers, its obligations under this Agreement by giving written notice to the Corporation at any time prior to the Closing Time if, after the date hereof and at any time prior to the Closing:

(a) there shall have occurred any change in any material fact, material adverse change (actual, intended, anticipated or threatened) or the Agent shall have discovered any previously undisclosed material fact (determined by the Agent in its sole discretion, acting reasonably) in relation to the Corporation, which, in the opinion of the Agent, acting reasonably, prevents or restricts trading in or the Distribution of the Offered Units or securities underlying the Offered Units or has or could reasonably be expected to have a Material Adverse Effect;

- (b) there shall have occurred any change in the Applicable Securities Laws of any Selling Jurisdiction or any inquiry, investigation or other proceeding by a securities regulatory authority or any order is issued under or pursuant to any statute of Canada or any province thereof or any stock exchange in relation to the Corporation or any of its securities (except for any inquiry, investigation or other proceeding based upon activities of the Agent and not upon activities of the Corporation), which, in the reasonable opinion of the Agent, would be expected to have a significant adverse effect on the market price of value of the Offered Units or securities underlying the Offered Units;
- (c) there should develop, occur or come into effect or existence any event, action, state, condition or major financial occurrence or catastrophe, accident, public protest, government law or regulation, war or act of terrorism of national or international consequence or any law or regulation which, in the opinion of the Agent, seriously adversely affects or involves, or will seriously adversely affect, or involve, the financial markets or the business, operations or affairs of the Corporation or the market price of value of the Offered Units or securities underlying the Offered Units;
- (d) the state of the financial markets in Canada and the United States is such that, in the reasonable opinion of the Agent, the Offered Units cannot be marketed profitably;
- (e) there is an inquiry or investigation (whether formal or informal) by any Securities Regulator or other regulatory authority in relation to the Corporation or any one of its directors or officers, or any of its principal shareholders, which has not been rescinded, revoked or withdrawn and which, in each case, operates to materially prevent or restrict the Distribution of the Offered Units as contemplated by this Agreement;
- (f) a cease trading order with respect to any securities of the Corporation is made by any Securities Regulator or other competent authority by reason of the fault of the Corporation or its directors, officers and agents and such cease trading order has not been rescinded, revoked or withdrawn;
- (g) the Agent, acting reasonably, is not satisfied in its sole discretion with its due diligence review and investigations;
- (h) the Corporation is in breach of a material term, condition or covenant of this Agreement or any representation or warranty given by the Corporation in this Agreement becomes or is false or misleading; and
- (i) the Corporation receives notice from the TSX that the Unit Shares or Warrant Shares shall not be accepted for listing on the TSX; provided that, solely with respect to the Warrants, this termination right will not be exercisable by the Agent if the minimum distribution requirements set out in Section 609(b) of the TSX Manual are not met solely as a result actions of the Agent.

The rights of termination contained herein are in addition to any other rights or remedies that the Agent may have in respect of any default, act or failure to act or noncompliance by the Corporation in respect of any of the matters contemplated by this Agreement or otherwise. In the event of any such termination, there shall be no further liability on the part of the Agent to the Corporation or on the part of the Corporation to the Agent except in respect of any liability which may have arisen prior to or arise after such termination under any of Sections 12 and 13.

#### 12. Indemnity and Contribution

The Corporation agrees to indemnify and hold harmless the Agent and each Selling Firm (provided that each such Selling Firm is in material compliance with the covenants and obligations of the Agent set forth in Section 3 herein (as if such Selling Firm were an Agent), to the extent applicable) and each of their subsidiaries and affiliates, and each of their respective directors, officers, employees, shareholders, partners, advisors and agents (collectively, the "Indemnified Parties" and each, an "Indemnified Party"), to the full extent lawful, from and against any and all losses (except loss of profit), claims, actions, suits, proceedings, damages, liabilities or expenses of whatsoever nature or kind, including the aggregate amount paid in reasonable settlement of any actions, suits, proceedings, investigations or claims and the reasonable fees and expenses of their counsel in connection with any action, suit, proceeding, investigation or claim that may be made or threatened against any Indemnified Party or in enforcing this indemnify (collectively, the "Claims") to which an Indemnified Party may become subject or otherwise involved in any capacity insofar as the Claims relate to, are caused by, result from, arise out of or are based upon, directly or indirectly, the performance of professional services rendered to the Corporation by an Indemnified Party hereunder or otherwise in connection with the matters referred to in this Agreement, whether performed before or after the Corporation's execution of this Agreement, including, without limitation, in connection with Claims relating to or arising from the following:

- (a) any information or statement (except any information or statement relating solely to or provided by the Agent) contained in the Offering Documents, which at the time and in light of the circumstances under which it was made contains or is alleged to contain a misrepresentation (as defined in the Securities Act (Ontario)) or any omission or any alleged omission to state therein any fact or information (except facts or information relating solely to the Agent) required to be stated therein or necessary to make any of the statements therein not misleading in light of the circumstances in which they are made;
- (b) the omission or alleged omission to state in any certificate of the Corporation or of any officers of the Corporation delivered in connection with the Offering any material fact (except facts or information relating solely to the Agent) required to be stated therein where such omission or alleged omission constitutes or is alleged to constitute a misrepresentation;
- (c) any order made or any inquiry, investigation or proceeding commenced or threatened by any securities regulatory authority, stock exchange or by any other competent authority, based upon any misrepresentation (as defined in the *Securities Act* (Ontario)) or alleged misrepresentation (except a misrepresentation relating solely to the Agent) in the Offering Documents (except any document or material delivered or filed solely by the Agent) based upon any failure or alleged failure to comply with Applicable Securities Laws (other than any failure or alleged failure to comply by the Agent) preventing and restricting the trading in or the sale of the Offered Units in any of the Selling Jurisdictions;
- (d) the non-compliance or alleged non-compliance by the Corporation with any material requirement of Applicable Securities Laws, including the Corporation's non-compliance with any statutory requirement to make any document available for inspection; or

(e) material breach of any representation, warranty or covenant of the Corporation contained in this Agreement or the Engagement Letter or the failure of the Corporation to comply in all material respects with any of its obligations hereunder or thereunder,

and further agrees to immediately reimburse each Indemnified Party forthwith, upon demand, for any legal or other expenses reasonably incurred by such Indemnified Party in connection with any Claim.

The Corporation also agrees that no Indemnified Party shall have any liability (either direct or indirect, in contract or tort or otherwise) to the Corporation or any person asserting Claims on the Corporation's behalf or in right for or in connection with the performance of professional services rendered to the Corporation by an Indemnified Party hereunder or otherwise in connection with the matters referred to in this Agreement, whether performed before or after the Corporation's execution of the Agreement, except to the extent that any losses, expenses, Claims, actions, damages or liabilities incurred by the Corporation are determined by a court of competent jurisdiction in a final judgement that has become non-appealable to have resulted from the Indemnified Party's breach of this Agreement, or the gross negligence, wilful misconduct, fraud or dishonesty of such Indemnified Party.

In the event and to the extent that a court of competent jurisdiction in a final judgement that has become non-appealable determines that an Indemnified Party breached this Agreement, or was grossly negligent or guilty of wilful misconduct, fraud or dishonesty in connection with a Claim in respect of which the Corporation has advanced funds to the Indemnified Party pursuant to this indemnity, such Indemnified Party shall immediately reimburse such funds to the Corporation and thereafter this indemnity shall not apply to such Indemnified Party in respect of such Claim.

The Corporation agrees to waive any right the Corporation might have of first requiring the Indemnified Party to proceed against or enforce any other right, power, remedy or security or claim payment from any other person before claiming under this indemnity.

In case any Claim is brought against an Indemnified Party, or an Indemnified Party has received notice of the commencement of any investigation in respect of which indemnity may be sought against the Corporation, the Indemnified Party will give the Corporation prompt written notice of any such Claim or investigation of which the Indemnified Party has knowledge and the Corporation will undertake the investigation and defence thereof on behalf of the Indemnified Party, including the prompt employment of counsel acceptable to the Indemnified Parties affected and the payment of all expenses. Failure by the Indemnified Party to so notify shall not relieve the Corporation of its obligation of indemnification hereunder unless (and only to the extent that) such failure results in the forfeiture by the Corporation of substantive rights or defences or the extent that the Corporation is materially prejudiced thereby.

No admission of liability and no settlement, compromise or termination of any Claim shall be made without the Corporation's consent and the consent of the Indemnified Parties affected, such consents not to be unreasonably withheld.

Notwithstanding that the Corporation will undertake the investigation and defence of any Claim, an Indemnified Party will have the right to employ separate counsel with respect to any Claim and participate in the defence thereof, but the fees and expenses of such counsel will be at the expense of the Indemnified Party unless:

- (a) the employment of such counsel has been authorized in writing by the Corporation;
- (b) the Corporation has not assumed the defence within a reasonable period of time after receiving notice of such Claim;

- (c) the named parties to any such Claim include both the Corporation and the Indemnified Party and the Indemnified Party shall have been advised by counsel that there may be a conflict of interest between the Corporation and the Indemnified Party; or
- (d) the Indemnified Party has been advised in writing by counsel that there are one or more defences available to the Indemnified Party which are different from or in addition to those available to the Corporation, which makes representation by the same counsel inappropriate.

The rights accorded to the Indemnified Parties hereunder shall be in addition to any rights an Indemnified Party may have at common law or otherwise.

If for any reason the foregoing indemnification is unavailable (other than in accordance with the terms hereof) to the Indemnified Parties (or any of them) or insufficient to hold them harmless, then the Corporation shall contribute to the amount paid or payable by the Indemnified Parties as a result of such Claim in such proportion as is appropriate to reflect not only the relative benefits received by the Corporation on the one hand and the Indemnified Parties on the other hand, but also the relative fault of the Corporation and the Indemnified Parties, as well as any other equitable considerations which may be relevant; provided that the Corporation shall, in any event, contribute to the amount paid or payable by the Indemnified Parties as a result of such Claim, any amount in excess of the fees actually received by the Indemnified Parties hereunder in which case such fees and expenses will be for the Corporation's account.

The Corporation hereby acknowledges the Agent as trustee for each of the other Indemnified Parties of the Corporation's covenants under this indemnity with respect to such persons and the Agent agrees to accept such trust and to hold and enforce such covenants on behalf of such persons.

The Corporation agrees to immediately reimburse the Agent monthly for the time spent by an Indemnified Party in connection with any Claim at their reasonable per diem rates. The Corporation also agrees that if any Claim shall be brought against, or an investigation commenced in respect of the Corporation or the Corporation and the Indemnified Parties shall be required to testify, participate or respond in respect of or in connection with the performance of professional services rendered to the Corporation by an Indemnified Party hereunder or otherwise in connection with the matters referred to in this Agreement, the Agent shall have the right to employ its own counsel in connection therewith and the Corporation will immediately reimburse the Agent monthly for the time spent by an Indemnified Party in connection therewith at their reasonable per diem rates together with such fees and disbursements and reasonable out-of-pocket expenses as may be incurred, including the fees and disbursements of the Agent's counsel.

#### 13. Expenses

Whether or not the transactions contemplated by this Agreement shall be completed, all expenses of or incidental to the Offering and all expenses of or incidental to all other matters in connection with the transaction set out in this Agreement shall be borne directly by the Corporation, including, without limitation, fees and expenses payable in connection with the qualification of the Offered Units and the Compensation Warrants for Distribution, fees and disbursements of counsel to the Agent incurred in connection with the Offering (to a maximum of \$60,000 plus disbursements and applicable taxes), all fees and disbursements of counsel to the Corporation and local counsel, all fees and expenses of the Corporation's Auditors, all fees or commissions payable in connection with sales of Offered Units to President's List Subscribers, the reasonable fees and expenses relating to the marketing of the Offered Units (including, without limitation, "road shows", marketing meetings, marketing documentation and institutional investor meetings) and all costs incurred in connection with the Offering. All reasonable expenses in connection with due diligence, marketing meetings and "road shows") and all costs incurred in connection with the Offering. All reasonable expenses incurred by or on behalf of the Agent and all fees and disbursements of counsel to the Agent and all fees and disbursements of counsel to the Agent and all fees and generation and printing of the Agent payable pursuant to the foregoing shall be deducted from the aggregate purchase price for the Offered Units in accordance with Section 8.

## 14. Survival of Representations, Warranties, Covenants and Agreements

The representations, warranties, covenants and agreements of the Corporation contained in this Agreement and in any certificate delivered pursuant to this Agreement or in connection with the purchase and sale of the Offered Units shall be true and correct at the Closing Time and shall survive the purchase of the Offered Units and shall continue in full force and effect until the later of: (i) three years following the Closing Date; and (ii) the latest date under the Applicable Securities Laws in which a Purchaser of Offered Units is resident or, if the Applicable Securities Laws do not specify such a date, the latest date under the *Limitations Act, 2002* (Ontario).

## 15. Conflict of Interest

The Corporation acknowledges that the Agent and its affiliates carry on a range of businesses, including providing stockbroking, investment advisory, research, investment management and custodial services to clients and trading in financial products as agent or principal. It is possible that the Agent and other entities in its group that carry on those businesses may hold long or short positions in securities of companies or other entities, which are or may be involved in the transactions contemplated in this Agreement and effect transactions in those securities for their own account or for the account of their respective clients. The Corporation agrees that these divisions and entities may hold such positions and effect such transactions without regard to the Corporation's interests under this Agreement.

# 16. Fiduciary

The Corporation hereby acknowledges that the Agent is acting solely as agent in connection with the offer and sale of the Offered Units. The Corporation further acknowledges that the Agent is acting pursuant to a contractual relationship created solely by this Agreement entered into on an arm's length basis, and in no event do the parties intend that the Agent act or be responsible as a fiduciary to the Corporation, its management, shareholders or creditors or any other person in connection with any activity that the Agent may undertake or have undertaken in furtherance of such offer and sale of the Corporation's securities, either before or after the date hereof. The Agent hereby expressly disclaims any fiduciary or similar obligations to the Corporation, either in connection with the transactions contemplated by this Agreement or any matters leading up to such transactions, and the Corporation hereby confirms its understanding and agreement to that effect. The Corporation and the Agent agree that they are each responsible for making their own independent judgments with respect to any such transactions and that any opinions or views expressed by the Agent to the Corporation recommodations to the Corporation. The Corporation and the Agent agree that the Agent agree that the Agent has not, and the Agent will not assume, any advisory responsibility in favour of the Corporation with respect to the transactions contemplated hereby or the process leading thereto (irrespective of whether the Agent has advised or is currently advising the Corporation on other matters). The Corporation hereby will be against the Agent with respect to any breach or alleged breach of any fiduciary duty to the Corporation in connection with the transactions contemplated by this Agreement.

#### 17. Notice

Unless otherwise expressly provided in this Agreement, any notice or other communication to be given under this Agreement (a "Notice") shall be in writing addressed as follows:

If to the Corporation, addressed and sent to:

Titan Medical Inc. 170 University Avenue, Suite 1000 Toronto, Ontario M5H 3B3

 Attention:
 David J. McNally, President and Chief Executive Officer

 Email:
 david.mcnally@titanmedicalinc.com

with a copy (which shall not constitute notice) to:

Borden Ladner Gervais LLP East Tower, Bay Adelaide Centre, 22 Adelaide Street West, Suite 3400 Toronto, Ontario M5H 4E3

Attention:Manoj PunditFax:(416) 367-6749Email:mpundit@blg.com

If to the Agent, addressed and sent to:

Bloom Burton Securities Inc. 65 Front Street East, Suite 300 Toronto, Ontario M5E 1B5

Attention:Michael PollardEmail:mpollard@bloomburton.com

with a copy (which shall not constitute notice) to:

Baker & McKenzie LLP Brookfield Place, Bay/Wellington Tower 181 Bay Street, Suite 2100 Toronto, Ontario M5J 2T3

Attention:Sonia YungFax:(416) 863-6275Email:sonia.yung@bakermckenzie.com

or to such other address as any of the persons may designate by Notice given to the others.

Each Notice shall be personally delivered to the addressee or sent by fax or email to the addressee and: (i) a Notice which is personally delivered shall, if delivered on a Business Day, be deemed to be given and received on that day and, in any other case, be deemed to be given and received on the first Business Day following the day on which it is delivered; and (ii) a Notice which is sent by fax or email shall be deemed to be given and received on the first Business Day following the day on which it is sent, provided that the sender has evidence of a successful transmission, such as a fax confirmation or email receipt confirmation.

#### 18. Entire Agreement

The provisions herein contained constitute the entire agreement between the parties relating to the Offering and supersede all previous communications, representations, understandings and agreements between the parties including, but not limited to, the Engagement Letter with respect to the subject matter hereof whether verbal or written.

#### 19. Press Releases

Any press release connected with the Offering issued by the Corporation shall be issued only after consultation with the Agent and in compliance with Applicable Securities Laws. If the Offering is successfully completed, the Agent shall be permitted to publish, at the Agent's expense, such advertisements or announcements relating to the services provided hereunder in such newspaper or other publications as it may consider appropriate as long as such advertisement or announcement complies with Applicable Securities Laws.

### 20. Funds

Unless otherwise specified, all funds referred to in this Agreement shall be in Canadian dollars.

## 21. Time of the Essence

Time shall be of the essence of this Agreement.

## 22. Further Assurances

Each of the parties hereto shall cause to be done all such acts and things or execute or cause to be executed all such documents, agreements and other instruments as may reasonably be necessary or desirable for the purposes of carrying out the provisions and intent of this Agreement.

## 23. Assignment

Except as contemplated herein, no party hereto may assign this Agreement or any part hereof without the prior written consent of the other parties hereto. Subject to the foregoing, this Agreement shall enure to the benefit of, and shall be binding upon, the Corporation and the Agent and their successors and legal representatives, and nothing expressed or mentioned in this Agreement is intended or shall be construed to give any other person any legal or equitable right, remedy or claim under or in respect of this Agreement, or any provisions contained in this Agreement, this Agreement and all conditions and provisions of this Agreement being intended to be and being for the sole and exclusive benefit of such persons and for the benefit of no other person except that the covenants and indemnities of the Corporation set out under the heading "Indemnity and Contribution" shall also be for the benefit of the Indemnified Party.

### 24. Severability

If any provision of this Agreement is determined to be void or unenforceable in whole or in part, it shall be deemed not to affect or impair the validity of any other provision of this Agreement and such void or unenforceable provision shall be severable from this Agreement.

## 25. Singular and Plural, etc.

Unless otherwise expressly provided in this Agreement, words importing only the singular number include the plural and vice versa and words importing gender include all genders. References to "Sections", "subsections" or "subparagraphs" are to the appropriate section, subsection or subparagraph of this Agreement.

### 26. Governing Law

This Agreement shall be governed by and construed in accordance with the laws of the Province of Ontario and the laws of Canada applicable therein and the parties hereto irrevocably attorn to the jurisdiction of the courts of such province.

## 27. Language

The parties hereto confirm their express wish that this Agreement and all documents and agreements directly or indirectly relating thereto be drawn up in the English language.

Les parties reconnaissent leur volont' express que la pr'sente convention ainsi que tous les documents et contrats s'y rattachant directement ou indirectement soient r'dig's en anglais.

#### 28. Counterparts

This Agreement may be executed by any one or more of the parties to this Agreement in any number of counterparts, each of which shall be deemed to be an original, but all such counterparts shall together constitute one and the same agreement.

## 29. Facsimile and Electronic Transmission

The Corporation and the Agent shall be entitled to rely on delivery by facsimile or other electronic means of an executed copy of this Agreement and acceptance by the Corporation and the Agent of that delivery shall be legally effective to create a valid and binding agreement between the Corporation and the Agent in accordance with the terms of this Agreement.

## [REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]

If the foregoing is in accordance with your understanding and is agreed to by you, please signify your acceptance by executing this letter where indicated below and returning the same to the Agent upon which this letter as so accepted shall constitute an agreement between us.

Yours very truly,

## **BLOOM BURTON SECURITIES INC.**

By: <u>(signed)</u> "Jolyon Burton" Authorized Officer

The foregoing offer is accepted and agreed to as of the date first above written.

## TITAN MEDICAL INC.

By: <u>(signed)</u> "Stephen Randall" Authorized Officer

## SCHEDULE "A"

## **CONVERTIBLE SECURITIES**

# **OPTIONS**

| EXERCISE PRICE | NUMBER     | EXPIRY DATE       |
|----------------|------------|-------------------|
| 0.50           | 500,000    | February 7, 2024  |
| 0.56           | 663,368    | August 2, 2018    |
| 0.57           | 8,325,572  | January 17, 2024  |
| 0.83           | 49,591     | March 21, 2018    |
| 0.96           | 305,107    | December 20, 2018 |
| 1.00           | 3,488,158  | August 24, 2021   |
| 1.02           | 193,478    | December 23, 2020 |
| 1.08           | 644,292    | January 27, 2021  |
| 1.39           | 19,746     | December 16, 2019 |
| 1.39           | 47,532     | May 15,2017       |
| 1.51           | 16,796     | August 11, 2020   |
| 1.72           | 485,985    | June 9, 2020      |
| 1.76           | 106,096    | March 6, 2019     |
| 1.94           | 379,539    | May 21, 2019      |
| Total          | 15,225,260 |                   |

# WARRANTS

Below is a table that sets out the various series of the warrants of the Corporation that were previously issued, using historic rates. The disclosure of the potential proceeds in the last column of the table below assumes all warrants are exercised on or before the expiry date. However, there is no assurance that any warrants will be exercised prior to their expiry.

| Ticker<br>Symbol | Issue<br>Date        | Expiry<br>Date       | Number<br>Issued | Number<br>Outstanding | Exercise<br>Price<br>(CDN \$) | Potential<br>Proceeds<br>(CDN \$) |
|------------------|----------------------|----------------------|------------------|-----------------------|-------------------------------|-----------------------------------|
| NOT<br>LISTED    | March 14,<br>2012    | March 14,<br>2017    | 1,986,755        | 390,729               | \$1.77                        | 691,590                           |
| TMD.WT.C         | March 13, 2013       | March 13, 2018       | 6,260,763        | 5,260,705             | \$1.25                        | 6,575,881                         |
| TMD.WT.E         | April 23,<br>2014    | April 23,<br>2017    | 12,203,189       | 12,346,914            | \$2.75                        | 33,954,014                        |
| TMD.WT.F.        | November<br>16, 2015 | November<br>16, 2020 | 7,012,195        | 7,012,195             | \$1.60                        | 11,219,512                        |
| TMD.WT.G         | February<br>12, 2016 | February<br>12, 2021 | 11,670,818       | 11,600,818            | \$1.00                        | 11,600,818                        |
| TMD.WT.G         | February 23, 2016    | February 23, 2021    | 1,746,789        | 1,746,789             | \$1.00                        | 1,746,789                         |

| Ticker<br>Symbol | Issue<br>Date       | Expiry<br>Date        | Number<br>Issued | Number<br>Outstanding | Exercise<br>Price<br>(CDN \$) | Potential<br>Proceeds<br>(CDN \$) |
|------------------|---------------------|-----------------------|------------------|-----------------------|-------------------------------|-----------------------------------|
| TMD.WT.H         | March 31,<br>2016   | March 31,<br>2021     | 15,054,940       | 15,054,940            | \$1.20                        | 18,065,928                        |
| TMD.WT.H         | April 14,<br>2016   | April 14,<br>2021     | 2,258,241        | 2,258,241             | \$1.20                        | 2,709,889                         |
| TMD.WT.I         | September 20, 2016  | September<br>20, 2021 | 17,083,333       | 17,083,333            | \$0.75                        | 12,812,500                        |
| TMD.WT.I         | October<br>27, 2016 | October<br>27, 2021   | 2,030,000        | 2,030,000             | \$0.75                        | 1,522,500                         |
| TOTAL            |                     |                       | 77,307,023       | 74,784,664            |                               | 100,899,421                       |

# BROKER WARRANTS

| Issue Date         | Number Issued | Exercise Price |
|--------------------|---------------|----------------|
| February 12, 2016  | 794,168       | \$0.90         |
| February 23, 2016  | 122,275       | \$0.90         |
| March 31, 2016     | 1,032,845     | \$1.00         |
| April 14, 2016     | 158,076       | \$1.00         |
| September 20, 2016 | 1,165,494     | \$0.60         |
| October 27, 2016   | 142,100       | \$0.60         |
| TOTAL              | 3,414,958     |                |

#### **SCHEDULE "B"**

## COMPLIANCE WITH UNITED STATES SECURITIES LAWS

### A. Definitions

Capitalized terms used in this Schedule "B" and not defined herein shall have the meanings ascribed thereto in the Agreement to which this Schedule is attached, and the following terms shall have the meanings indicated:

- (a) "Accredited Investor" means an institutional "accredited investor" within the meaning of Rule 501(a)(1), (2), (3) or (7) of Regulation D;
- (b) "Dealer Covered Person" has the meaning set forth below;
- (c) "Directed Selling Efforts" means "directed selling efforts" as that term is defined in Regulation S. Without limiting the foregoing, but for greater clarity in this Schedule "B", it means, subject to the exclusions from the definition of directed selling efforts contained in Regulation S, any activity undertaken for the purpose of, or that could reasonably be expected to have the effect of, conditioning the market in the United States for any of the Offered Units, the Unit Shares, the Warrants or the Warrant Shares and includes the placement of any advertisement in a publication with a general circulation in the United States that refers to the offering of any of such securities;
- (d) "Disqualification Event" has the meaning set forth below;
- (e) "Regulation D" means Regulation D promulgated under the U.S. Securities Act;
- (f) "Regulation D Securities" has the meaning set forth below;
- (g) "Regulation S" means Regulation S promulgated under the U.S. Securities Act;
- (h) "Rule 144A" means Rule 144A under the U.S. Securities Act;
- (i) "Substantial U.S. Market Interest" means a "substantial U.S. market interest" as that term is defined in Regulation S;
- (j) "U.S. Exchange Act" means the United States Securities Exchange Act of 1934, as amended; and
- (k) "U.S. Subscription Agreement" has the meaning set forth below.

## B. Representations, Warranties and Covenants of the Agent

The Agent acknowledges and agrees that the Offered Units, the Unit Shares, the Warrants and the Warrant Shares have not been and will not be registered under the U.S. Securities Act or applicable state securities laws, and the Offered Units, the Unit Shares and the Warrants may be offered and sold only in transactions exempt from, or not subject to, the registration requirements of the U.S. Securities Act and any applicable state securities laws. Accordingly, the Agent represents, warrants and covenants to the Corporation that:

- 1. None of the Agent, the U.S. Selling Group Member, their respective affiliates or any person acting on any of its or their behalf has offered or will offer any Offered Units, Unit Shares or Warrants except: (a) in an "offshore transaction," as such term is defined in Regulation S, outside the United States to non-U.S. Persons in accordance with Rule 903 of Regulation S; or (b) in the United States to, or for the account or benefit of, persons in the United States or U.S. Persons as provided in paragraphs 2 through 12 below. Accordingly, none of the Agent, the U.S. Selling Group Member, their respective affiliates or any person acting on any of its or their behalf, has made or will make (except as permitted in paragraphs 2 through 12 below): (i) any offer to sell, or any solicitation of an offer to buy, any Offered Units, Unit Shares or Warrants in the United States or to, or for the account or benefit of, any person in the United States, not a U.S. Person and not acting for the account or benefit of a person in the United States or a U.S. Person and not acting on its or their behalf reasonably believed that such purchaser was outside the United States, not a U.S. Person and not acting on its or their behalf reasonably believed that such purchaser was outside the United States, not a U.S. Person and not acting for the account or benefit of a person in the United States or a U.S. Person, or the Agent, the U.S. Selling Group Member, their respective affiliates or person acting on its or their behalf reasonably believed that such purchaser was outside the United States, not a U.S. Person and not acting for the account or benefit of a person; or (iii) any Directed Selling Efforts.
- 2. It has not entered and will not enter into any contractual arrangement with respect to the offer and sale of the Offered Units, the Unit Shares or the Warrants, except with the U.S. Selling Group Member, its affiliates, any Selling Firm or with the prior written consent of the Corporation. It shall require the Selling Group Member, its affiliates and any Selling Firm to agree in writing, for the benefit of the Corporation, to comply with, and shall use its best efforts to ensure that the Selling Group Member, its affiliates and any Selling Firm complies with, the same provisions of this Schedule "B" as apply to such Agent as if such provisions applied to the U.S. Selling Group Member, its affiliates and any Selling Firm.
- 3. All offers and sales of Offered Units, Unit Shares and Warrants in the United States or to, or for the account or benefit of, persons in the United States, or U.S. Persons, have been and shall be made only by the U.S. Selling Group Member or a Selling Firm, which is a U.S. broker-dealer registered pursuant to Section 15(b) of the U.S. Exchange Act and under the securities laws of each state in which offers and sales were or will be made (unless exempted from the respective state's broker-dealer registration requirements) and in good standing with the Financial Industry Regulatory Authority, Inc., in compliance with all applicable U.S. federal and state broker-dealer requirements.
- 4. Offers of Offered Units, Unit Shares and Warrants in the United States to, or for the account or benefit of, persons in the United States and U.S. Persons have not been made and shall not be made: (i) by any form of "general solicitation" or "general advertising" (as those terms are used in Rule 502(c) of Regulation D), including, without limitation, advertisements, articles, notices or other communications published in any newspaper, magazine or similar media, or on the internet, or broadcast over radio, television or the internet, or any seminar or meeting whose attendees have been invited by general solicitation or general advertising or (ii) or has taken or will take any action that would constitute a public offering of the Offered Units in the United States within the meaning of Section 4(a)(2) of the U.S. Securities Act.
- 5. The Agent, acting only through the U.S. Selling Group Member or a Selling Firm, has offered and will offer the Offered Units, the Unit Shares and the Warrants in the United States or to, or for the account or benefit of, persons in the United States and U.S. Persons only to offerees with respect to which the Agent, the U.S. Selling Group Member or the Selling Firm has a pre-existing business relationship and has reasonable grounds to believe and does believe, are Accredited Investors (and in compliance with Rule 506(b) of Regulation D and applicable state securities laws).

- 6. Each offeree of Offered Units, Unit Shares or Warrants in the United States, who is a U.S. Person or who is acting for the account or benefit of a person in the United States or a U.S. Person has been or shall be provided with a copy of the final U.S. Memorandum, in the form agreed to by the Corporation and the Agent, including the Prospectus Supplement. Prior to any sale of Offered Units, Unit Shares or Warrants to, or for the account of benefit of, a person in the United States or a U.S. Person or to a person who was offered such securities in the United States, each such purchaser shall be provided with a copy of the final U.S. Memorandum, including the Prospectus Supplement, and no other written material was used in connection with the offer or sale of the Offered Units, the Unit Shares or the Warrants to, or for the account or benefit of, persons in the United States or U.S. Persons.
- 7. Prior to the completion of any sale by the Corporation of Offered Units in the United States or to, or for the account or benefit of, persons in the United States or U.S. Persons, (i) each such purchaser thereof will be required to execute a subscription agreement for sales to such U.S. purchasers in the form attached as Exhibit I to the final U.S. Memorandum (the "U.S. Subscription Agreement").
- 8. Prior to the Closing Date, the Agent will provide the Corporation and the transfer agent of the Corporation with a list of all purchasers of the Offered Units in the United States, who are U.S. Persons, who are purchasing for the account or benefit of persons in the United States or U.S. Persons or who were offered Offered Units in the United States. Prior to the Closing Date, the Agent will provide the Corporation with copies of all U.S. Subscription Agreements, duly executed by such purchasers for acceptance by the Corporation.
- 9. At Closing, each of the Agent, the U.S. Selling Group Member and any applicable Selling Firm that has offered or sold Offered Units, Unit Shares or Warrants to, or for the account or benefit of, persons in the United States or U.S. Persons will provide a certificate, substantially in the form of Exhibit 1 to this Schedule "B", relating to the manner of the offer and sale of the Offered Units, the Unit Shares and the Warrants to, or for the account or benefit of, persons in the United States and U.S. Persons or the Agent and such persons will be deemed to have represented and warranted that no offers or sales of the Offered Units, the Unit Shares or the Warrants were made to, or for the account or benefit of, persons in the United States or U.S. Persons.
- 10. None of the Agent, the U.S. Selling Group Member, their respective affiliates or any person acting on any of its or their behalf has taken or will take, directly or indirectly, any action in violation of Regulation M under the U.S. Exchange Act with respect to the offer or sale of the Offered Units, the Unit Shares or the Warrants.
- 11. As of the Closing Date, with respect to Offered Units, Unit Shares and Warrants to be offered and sold hereunder in reliance on Rule 506(b) of Regulation D (the "Regulation D Securities"), the Agent represents that none of (i) the Agent or the U.S. Selling Group Member, (ii) the Agent or the U.S. Selling Group Member's general partners or managing members, (iii) any of the Agent's or the U.S. Selling Group Member's directors, executive officers or other officers participating in the offering of the Regulation D Securities, (iv) any of the Agent's or the U.S. Selling Group Member's general partners' or managing members, (iv) any of the Agent's or the U.S. Selling Group Member's general partners' or managing members, directors, executive officers or other officers participating in the offering of the Regulation D Securities, (iv) any of the Agent's or the U.S. Selling Group Member's general partners' or managing members' directors, executive officers or other officers participating in the offering of the Regulation D Securities or (v) any other person associated with any of the above persons, including any Selling Firm and any such persons related to such Selling Firm, that has been or will be paid (directly or indirectly) remuneration for solicitation of purchasers in connection with sale of Regulation D Securities (each, a "Dealer Covered Person" and, collectively, the "Dealer Covered Persons"), is subject to any of the "Bad Actor" disqualifications described in Rule 506(d)(1) under Regulation D (a "Disqualification Event").

12. As of the Closing Date, the Agent represents that it is not aware of any person (other than any Dealer Covered Person) that has been or will be paid (directly or indirectly) remuneration for solicitation of purchasers in connection with the sale of any Regulation D Securities.

### C. Representations, Warranties and Covenants of the Corporation

The Corporation represents, warrants, covenants and agrees that, as of the date hereof and the Closing Date:

- 1. The Corporation is a "foreign issuer", within the meaning of Regulation S, and reasonably believes that there is no Substantial U.S. Market Interest in the Offered Units, the Unit Shares, the Warrant Shares or any class of the Corporation's equity securities.
- 2. The Corporation is not, and as a result of the sale of the Offered Units, the Unit Shares and the Warrants and the issuance of the Warrant Shares will not be, an "investment company", as defined in the United States Investment Company Act of 1940, as amended, registered or required to registered under such Act.
- 3. During the period in which the Offered Units, the Unit Shares and the Warrants are offered for sale, none of it, its affiliates, or any person acting on its or their behalf (other than the Agent, the U. S. Selling Group Member, any of its or their respective affiliates, or any person acting on any of its or their behalf in respect of which no representation, warrant, covenant or agreement is made): (i) has made or will make any Directed Selling Efforts; or (ii) has engaged in or will engage in any form of "general solicitation" or "general advertising" (as those terms are used in Rule 502(c) of Regulation D) with respect to offers or sales of the Offered Units, the Unit Shares or the Warrants to, or for the account or benefit of, persons in the United States or U.S. Persons, including, without limitation, advertisements, anticles, notices or other communications published in any newspaper, magazine or similar media or on the internet, or broadcast over radio, television or the internet, or any seminar or meeting whose attendees have been invited by general solicitation or general advertising or has taken or will take any action that would constitute a public offering of the Offered Units in the United States within the meaning of Section 4(a)(2) of the U.S. Securities Act.
- 4. The Corporation has not, for a period of six months prior to the commencement of the Offering, sold, offered for sale or solicited any offer to buy any of its securities in a manner that would be integrated with the offer and sale of the Offered Units, the Unit Shares or the Warrants and would cause the exemption from registration set forth in Rule 506(b) of Regulation D to become unavailable with respect to the offer and sale of the Offered Units, the Unit Shares or the Warrants to, or for the account or benefit of, persons in the United States or U.S. Persons.
- 5. During the period in which the Offered Units, the Unit Shares and the Warrants are offered for sale, none of the Corporation, its affiliates, or any person acting on any of its or their behalf (other than the Agent, the U.S. Selling Group Member, any of its or their respective affiliates or any person acting on its or their behalf, in respect of which no representation, warranty, covenant or agreement is made) has taken or will take any action (i) in violation of Regulation M under the U. S. Exchange Act in connection with the offer or sale of the Offered Units, the Unit Shares or the Warrant Shares or (ii) that would cause the exemption afforded by Rule 506(b) of Regulation D to be unavailable for offers and sales of the Offered Units, the Unit Shares or the Warrants in the United States or to, or for the account or benefit of, persons in the United States or U.S. Persons in accordance with the Agreement, or the exclusion from registration afforded by Rule 903 of Regulation S to be unavailable for offers and sales of the Unit Shares or the Warrants outside the United States to non-U.S. Persons in accordance with the Agreement.

- 6. Within 15 days of the first sale of the Offered Units, the Unit Shares or the Warrants in the United States to, or for the account or benefit of, persons in the United States or U.S. Persons who are Accredited Investors, the Corporation will file a Form D, Notice of Sale, with the United States Securities and Exchange Commission and any applicable state securities commissions in connection with the offer and sale of such securities.
- Neither the Corporation nor any of its predecessors or affiliates has been subject to any order, judgment or decree of any court of competent jurisdiction, temporarily, preliminarily or permanently enjoining such person for failure to comply with Rule 503 of Regulation D.
- 8. Except with respect to offers and sales in accordance with this Agreement (including this Schedule "B") to, or for the account or benefit of, persons in the United States or U.S. Persons to Accredited Investors in reliance upon the exemption from registration set forth in Rule 506(b) of Regulation D, none of the Corporation, its affiliates, or any person acting on its or their behalf (other than the Agent, the U.S. Selling Group Member, any of its or their respective affiliates or any person acting on any of its or their behalf, in respect of which no representation, warranty, covenant or agreement is made), has made or will make: (A) any offer to sell, or any solicitation of an offer to buy, any Offered Units, Unit Shares or Warrants in the United States or to, or for the account or benefit of, a person in the United States or a U.S. Person; or (B) any sale of Offered Units, Unit Shares or Warrants unless, at the time the buy order was or will have been originated, the purchaser is (i) outside the United States, not a U.S. Person and not acting for the account or benefit of a person in the United States, and any person acting on their behalf reasonably believes that the purchaser is outside the United States, not a U.S. Person.
- 9. As of the Closing Date, with respect to the offer and sale of the Regulation D Securities, none of the Corporation, any of its predecessors, any "affiliated" (as such term is defined in Rule 501(b) of Regulation D) issuer, any director, executive officer or other officer of the Corporation participating in the offering of the Regulation D Securities, any beneficial owner of 20% or more of the Corporation's outstanding voting equity securities, calculated on the basis of voting power, or any promoter (as that term is defined in Rule 405 under the U.S. Securities Act) connected with the Corporation in any capacity at the time of sale of the Regulation D Securities (other than any Dealer Covered Person, as to whom no representation is made) is subject to any Disqualification Event.
- 10. As of the Closing Date, the Corporation is not aware of any person (other than any Dealer Covered Person) that has been or will be paid (directly or indirectly) remuneration for solicitation of purchasers in connection with the sale of any Regulation D Securities.

## EXHIBIT 1

## **TO SCHEDULE "B"**

### AGENT'S CERTIFICATE

In connection with the private placement to, or for the account or benefit of, persons in the United States and U.S. Persons of the Offered Units of Titan Medical Inc. (the "**Corporation**") pursuant to the agency agreement dated March 10, 2017 by and between the Corporation and the Agent (the "**Agreement**"), the undersigned do hereby certify as follows:

- 1. (the "U.S. Selling Group Member") was on the date of each offer and sale of Offered Units, Unit Shares and Warrants in the United States or to, or for the account or benefit of, persons in the United States or U.S. Persons, and is on the date hereof, a duly registered broker-dealer with the United States Securities and Exchange Commission and under the securities laws of each state in which such offers and sales were made (unless exempted from the respective state's broker- dealer registration requirements) and a member of, and in good standing with, the Financial Industry Regulatory Authority, Inc.
- 2. All offers and sales of the Offered Units, the Unit Shares and the Warrants in the United States or to, or for the account or benefit of, persons in the United States and U.S. Persons have been conducted by us through the U.S. Selling Group Member and in accordance with the terms of the Agency Agreement (including Schedule "B" thereto) and all applicable U.S. federal and state broker-dealers requirements.
- 3. Immediately prior to offering Offered Units, the Unit Shares and the Warrants to each prospective purchasers in the United States, who was a U.S. Person or who was acting for the account or benefit of a person in the United States or a U.S. Person (each, a "U.S. Offeree"), we had reasonable grounds to believe and did believe that each U.S. Offeree was an Accredited Investor and, on the date hereof, we continue to believe that each U.S. Offeree purchasing the Offered Units from the Corporation is an Accredited Investor.
- 4. Each U.S. Offered of Offered Units, Unit Shares or Warrants was provided with a copy of the final U.S. Memorandum, in the form agreed to by the Corporation and the Agent, including the Prospectus Supplement, and each purchaser of Offered Units, Unit Shares or Warrants who (i) is in the United States, (ii) is a U.S. Person, (iii) is acting for the account or benefit of a person in the United States or a U.S. Person or (iv) was offered Offered Units, Unit Shares or Warrants in the United States, was provided with a copy of the final U.S. Memorandum, including the Prospectus Supplement, and no other written material was used in connection with the offer and sale of the Offered Units, the Unit Shares or the Warrants to, or for the account or benefit of, persons in the United States or U.S. Persons;
- 5. No form of "general solicitation" or "general advertising" (as those terms are used in Rule 502(c) of Regulation D) was used by us, including, without limitation, advertisements, articles, notices or other communications published in any newspaper, magazine or similar media or on the internet or broadcast over radio, television or the internet, or any seminar or meeting whose attendees had been invited by general solicitation or general advertising, in connection with the offer and sale of the Offered Units, the Unit Shares or the Warrants to, or for the account or benefit of, persons in the United States or U.S. Persons.

- 6. Prior to any sale of Offered Units, the Unit Shares or Warrants to a U.S. Offeree, we caused each such U.S. Offeree who is an Accredited Investor to execute a U.S. Subscription Agreement substantially in the form of Exhibit I to the U.S. Offering Memorandum.
- 7. Neither we nor any of our affiliates have taken or will take, directly or indirectly, any action in violation of Regulation M under the U.S. Exchange Act with respect to the offer or sale of the Offered Units, the Unit Shares or the Warrants.
- 8. None of (i) the undersigned, (ii) the undersigned's general partners or managing members, (iii) any of the undersigned's directors, executive officers or other officers participating in the offering of the Regulation D Securities, (iv) any of the undersigned's general partners' or managing members' directors, executive officers or other officers participating in the offering of the Regulation D Securities or (v) any other person associated with any of the above persons, including any Selling Firm and any such persons related to such Selling Firm, that has been or will be paid (directly or indirectly) remuneration for solicitation of purchasers in connection with sale of Regulation D Securities (each, a "Dealer Covered Person" and, collectively, the "Dealer Covered Persons"), is subject to any to any of the "Bad Actor" disqualifications described in Rule 506(d)(1) under Regulation D (a "Disqualification Event").
- 9. The undersigned represents that it is not aware of any person (other than any Dealer Covered Person) that has been or will be paid (directly or indirectly) remuneration for solicitation of purchasers in connection with the sale of any Regulation D Securities.
- 10. The offering of the Offered Units, the Unit Shares or the Warrants to, or for the account or benefit of, persons in the United States or U.S. Persons has been conducted by us in accordance with the terms of the Agreement, including Schedule "B" thereto.

Capitalized terms used in this certificate have the meanings given to them in the Agreement, including Schedule "B" attached thereto, unless otherwise defined herein.

| DATED this day of, 2017. |                           |     |
|--------------------------|---------------------------|-----|
| [AGENT]                  | [U.S. SELLING GROUP MEMBI | ER] |
| By:                      | By:                       |     |
| Name:                    | Name:                     |     |
| Title:                   | Title:                    |     |

# SCHEDULE "C"

# **CORPORATION IP**

# **Patents**

| Region              | Application Number | Publication Number             | IP Right Number |
|---------------------|--------------------|--------------------------------|-----------------|
| <u>Region</u><br>CA | 2913943            | 2913943                        | IP Right Number |
| CN                  | 201380078618       | 105431106                      | -               |
| EP                  | 13887243.7         | 2996613                        | -               |
| EP                  |                    | 2785267                        | -               |
| EP<br>IN            | 11876682.3         |                                | -               |
| JP                  | 11772/DELNP/2015   | 11772/DELNP/2015<br>2016528946 | -               |
|                     | 2016-520200        |                                | -               |
| US                  | 15/294477          | 20170027656                    | -               |
| US                  | 62/308296          | -                              | -               |
| US                  | 15/211295          | 20160346051                    | -               |
| US                  | 62/319426          | -                              | -               |
| US                  | 62/377080          | -                              | -               |
| US                  | 14/899768          | 20160143633                    | -               |
| US                  | 14/279828          | 20140249546                    | -               |
| US                  | 14/261614          | 20140276956                    | -               |
| US                  | 14/262221          | 20140230595                    | -               |
| US                  | 13/660328          | 20130197538                    | -               |
| US                  | 62/323032          | -                              | -               |
| US                  | 15/442070          | -                              | -               |
| WO                  | PCT/CA2016/000193  | 2017008142                     | -               |
| WO                  | PCT/CA2016/000059  | 2016165004                     | -               |
| WO                  | PCT/CA2016/000007  | 2016109887                     | -               |
| WO                  | PCT/CA2016/000006  | 2016109886                     | -               |
| WO                  | PCT/CA2015/000600  | 2016176755                     | -               |
| WO                  | PCT/CA2015/000098  | 2016090459                     | -               |
| WO                  | PCT/CA2016/000054  | 2016134452                     | -               |
| WO                  | PCT/CA2016/000215  | -                              | -               |
| WO                  | PCT/CA2016/000112  | 2016201544                     | -               |
| WO                  | PCT/CA2017/000011  | -                              | -               |
| WO                  | PCT/CA2016/000316  | -                              | -               |
| WO                  | PCT/CA2016/000300  | -                              | -               |
| EP                  | 11874984.5         | 2773277                        | 2773277         |
| US                  | 14/831045          | 20160030122                    | 9421068         |
| US                  | 14/302723          | 20140316435                    | 9149339         |
| US                  | 13/660615          | 20130197697                    | 8930027         |
| US                  | 13/494852          | 20120253513                    | 8768509         |
| US                  | 13/106306          | -                              | 9033998         |
| US                  | 12/449779          | 20100036393                    | 8792688         |
| US                  | 12/227582          | 20100030377                    | 8224485         |
| US                  | 12/655675          | -                              | 8306656         |
| US                  | 12/583351          | _                              | 8332072         |
| US                  | 12/459292          | _                              | 8347754         |
| US                  | 09/474924          | _                              | 6358196         |
|                     |                    |                                | 0000170         |

**Trademarks** 

<u>Region</u> US US

<u>Serial Number</u> 87222823 87222834

<u>Title</u> T TITAN MEDICAL T

**Registration** -

C - 2

## SCHEDULE "D"

## LICENSOR CONTRACTS

## **Corporation as Licensor**

- Synergist Medical Inc., a predecessor to the Corporation, entered into a patent agreement with Reiza Rayman on May 12, 2008 pursuant to which Synergist Medical Inc. granted to Rayman certain exclusive rights in and to U.S. Patent No. 6,358,196.
- Synergist Medical Inc., a predecessor to the Corporation, entered into a patent agreement with John D. Unsworth on May 1, 2008 pursuant to which Synergist Medical Inc. granted to Unsworth certain exclusive rights in and to U.S. Patents 8,224,485, 8,768,509, 8,792,688, and 9,421,068 and U.S. Patent Application Serial No. 15/211,295.

## SCHEDULE "E"

## LICENSING AGREEMENTS

## **Corporation as Licensee**

- The Corporation entered into a license agreement with Mayo Foundation for Medical Education and Research effective as of June 27, 2011 pursuant to which the Corporation received certain exclusive rights to intellectual property developed by Heidi Nelson, M.D., and David W. Larson, M.D., Mayo Clinic.
- The Corporation entered into a licence agreement with Columbia University effective February 3, 2012 pursuant to which the Corporation received certain exclusive rights to intellectual property relating to a robotic surgical technology for use in single-port surgery.
- The Corporation entered into a license agreement with Mayo Foundation for Medical Education and Research effective December 14, 2015, pursuant to which the Corporation received certain rights to intellectual property developed by David W. Larson, M.D., Mayo Clinic.



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## Titan Medical Inc. Announces Filing of Prospectus Supplement

Toronto, ON – (Marketwired – March 10, 2017) – Titan Medical Inc. ("Titan" or the "Company") (TSX: TMD) (OTCQX: TITXF) is pleased to announce that it has today filed a prospectus supplement (the "Prospectus Supplement") to the Company's short form base shelf prospectus dated August 18, 2015 (with the Prospectus Supplement, the "Prospectus"), regarding its previously announced public offering (the 'Offering") of units of the Company ("Units"). Each Unit is comprised of one common share of the Company (a "Common Share") and (i) one-half of one common share purchase warrant, each whole warrant exercisable for one Common Share, at a price of C\$0.40 for a period of two years following the closing of the Offering (the "Closing"), and (ii) one-half of one common share purchase warrant, each whole warrant exercisable for one Common Share, at a price of C\$0.50 for a period of four years following Closing.

Bloom Burton Securities Inc. (the "Agent") has agreed to sell, on a best efforts agency basis, a minimum of 15,333,714 Units and a maximum of 21,467,200 Units at a price of C\$0.35 per Unit for total gross proceeds of a minimum of approximately C\$5,366,800 and a maximum of approximately C\$7,513,520.

The Offering is subject to a number of conditions, including, without limitation, receipt of all regulatory approvals.

The net proceeds of the Offering (the "Net Proceeds") will be used to fund continued development work in connection with the Company's SPORT<sup>TM</sup> Surgical System, as well as for working capital and other general corporate purposes. Details as to the specific allocation of the Net Proceeds are disclosed in the Prospectus Supplement.

For further details regarding the Offering, please see the Company's press releases dated March 7, 2017 and March 8, 2017, the agency agreement dated March 10, 2017 and the Prospectus Supplement, copies of which are available under the Company's profile at <u>www.sedar.com</u>.

The outstanding Shares are listed on the Toronto Stock Exchange (the **TSX**") under the symbol "TMD". The TSX has conditionally approved the listing of the Common Shares issuable in connection with the Offering. Listing will be subject to the Company fulfilling the listing requirements of the TSX on or before June 9, 2017.

### About Titan Medical Inc.

Titan Medical Inc. is a Canadian public company focused on research and development through to the planned commercialization of computer-assisted robotic surgical technologies for application in minimally invasive surgery ("MIS"). The Company is currently developing the SPORT Surgical System, a single-port robotic surgical system. The SPORT Surgical System is comprised of a surgeon-controlled patient cart that includes a 3D high definition vision system and multi-articulating instruments for performing MIS procedures, and a surgeon workstation that provides the surgeon with an advanced ergonomic interface to the patient cart and a 3D endoscopic view inside the patient's body during MIS procedures. With the SPORT Surgical System, the Company aims to pursue a broad set of surgical indications, including general abdominal, gynecologic and urologic procedures.

For more information, please visit the Company's website at www.titanmedicalinc.com.

### Forward-Looking Statements

This press release contains "forward-looking statements" which reflect the current expectations of management of the Company, including with respect to the intended use of the Net Proceeds. Such statements include, but are not limited to, statements regarding receipt of applicable regulatory approvals, the anticipated Closing Date and the proposed use of the Net Proceeds. Wherever possible, words such as "may", "would", "could", "will", "anticipate", "believe", "plan", "expect", "intend", "estimate", "potential for" and similar expressions have been used to identify these forward-looking statements. These statements reflect management's current beliefs with respect to future events and are based on information currently available to management. Forward-looking statements involve significant risks, uncertainties and assumptions. Many factors could cause the Company's actual results, performance or achievements to be materially different from any future results, performance or achievements that may be expressed or implied by such forward-looking statements, including, without limitation, those listed in the "Risk Factors" section of the Company's Annual Information Form dated March 30, 2016 ( which maybe viewed at <u>www.sedar.com</u>). Should one or more of these risks or uncertainties materialize, or should assumptions underlying the forward-looking statements may vary materially from those expressed or implied by the forward-looking statements contained in this news release. These factors should be considered carefully and prospective investors should not place undue reliance on the forward-looking statements. Although the forward-looking statements contained in the news release are based upon what management currently believes to be reasonable assumptions, the Company cannot assure prospective investors that actual results, performance or achievements will be consistent with these forward-looking statements.

# U.S. Securities Law Caution

The securities described herein have not been, and will not be, registered under the United States Securities Act of 1933, as amended (the 'U.S. Securities Act"), or any state securities laws, and accordingly, may not be offered or sold to, or for the account or benefit of, persons in the United States or "U.S. persons," as such term is defined in Regulation S promulgated under the U.S. Securities Act ("U.S. Persons"), except in compliance with the registrationrequirements of the U.S. Securities Act and applicable state securities requirements or pursuant to exemptions therefrom. This press release does not constitute an offer to sell or a solicitation of an offer to buy any of the Company's securities to, or for the account or benefit of, persons in the United States or U.S. Persons.

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#### **Titan Medical Inc. Announces Closing of Public Offering**

Toronto, ON – (Marketwired – March 16, 2017) – Titan Medical Inc. (the "Company") (TSX: TMD) (OTCQX: TITXF) is pleased to announce that it closed its previously announced public offering (the "Offering") earlier today pursuant to an agency agreement (the "Agency Agreement") dated March 10, 2017 between the Company and Bloom Burton Securities Inc. (the "Agent"). The Company sold 21,467,200 units (each, a "Unit") under the Offering at a price of CDN \$0.35 per Unit for gross proceeds of CDN \$7,513,520.

Each Unit is comprised of one common share of the Company (a "**Common Share**") and (i) one-half of one Common Share purchase warrant, each whole warrant exercisable for one Common Share, at a price of C\$0.40 for a period of two years following the closing of the Offering (the "**Closing**"), and (ii) one-half of one Common Share purchase warrant, each whole warrant exercisable for one Common Share, at a price of C\$0.50 for a period of four years following Closing. The Common Shares sold under the Offering will be listed and posted for trading on the Toronto Stock Exchange under the symbol TMD at the opening on March 16, 2017.

The Units were qualified for sale by way of a prospectus supplement dated March 10, 2017 to the Company's short form base shelf prospectus dated August 18, 2015 (together, the "**Prospectus**"), which has been filed in the Provinces of British Columbia, Alberta and Ontario.

The net proceeds of the Offering (the "Net Proceeds") will be used to fund continued development work in connection with the Company's SPORT<sup>TM</sup> Surgical System, as well as for working capital and other general corporate purposes.

Roth Capital Partners acted as special selling group member in connection with the Offering.

For further details regarding the Offering, please see the Company's press releases dated March 7, 2017, March 8, 2017, and March 10, 2017, the Agency Agreement and the Prospectus, copies of which are available under the Company's profile at <u>www.sedar.com</u>.

#### **Related Party Transaction**

An aggregate of 630,914 Units were issued to insider of the Company under the Offering for gross proceeds of \$220,819. The insider subscriptions constitute a "related party transaction" pursuant to Multilateral Instrument 61-101 - Protection of Minority Security Holders in Special Transactions ("MI 61-101"). In completing the insider subscriptions, the Company relied on the exemptions from the formal valuation and minority shareholder approval requirements of MI 61-101 set forth in sections 5.5(a) and 5.7(a) of MI 61-101, as the aggregate value of the insider subscription does not exceed 25% of the market capitalization of the Company.

The Company did not file a material change report more than 21 days before the expected closing of the Offering due to the limited time between the launch of the Offering and the Closing.

## About Titan Medical Inc.

Titan Medical Inc. is a Canadian public company focused on research and development through to the planned commercialization of computer-assisted robotic surgical technologies for application in minimally invasive surgery ("MIS"). The Company is currently developing the SPORT Surgical System, a single-port robotic surgical system. The SPORT Surgical System is comprised of a surgeon-controlled patient cart that includes a 3D high definition vision system and multi-articulating instruments for performing MIS procedures, and a surgeon workstation that provides the surgeon with an advanced ergonomic interface to the patient cart and a 3D endoscopic view inside the patient's body during MIS procedures. With the SPORT Surgical System, the Company aims to pursue a broad set of surgical indications, including general abdominal, gynecologic and urologic procedures.

For more information, please visit the Company's website at www.titanmedicalinc.com.

#### Forward-Looking Statements

This press release contains "forward-looking statements" which reflect the current expectations of management of the Company. Such statements include, but are not limited to, statements regarding receipt of applicable regulatory approvals, the anticipated Closing Date and the proposed use of the Net Proceeds. Wherever possible, words such as "may", "would", "could", "will", "anticipate", "believe", "plan", "expect", "intend", "estimate", "potential for" and similar expressions have been used to identify these forward-looking statements. These statements reflect management's current beliefs with respect to future events and are based on information currently available to management. Forward-looking statements involve significant risks, uncertainties and assumptions. Many factors could cause the Company's actual results, performance or achievements to be materially different from any future results, performance or achievements that may be expressed or implied by such forward-looking statements, including, without limitation, those listed in the "Risk Factors" section of the Company's Annual Information Form dated March 30, 2016 (which may be viewed at <u>www.sedar.com</u>). Should one or more of these risks or uncertainties materialize, or should assumptions underlying the forward-looking statements prove incorrect, actual results, performance or achievements may vary materially from those expressed or implied by the forward-looking statements contained in this news release. These factors should be considered carefully and prospective investors should not place undue reliance on the forward-looking statements. Although the forward-looking statements contained in the news release are based upon what management currently believes to be reasonable assumptions, the Company cannot assure prospective investors that actual results, performance or achievements will be consistent with these forward-looking statements.

# U.S. Securities Law Caution

The securities described herein have not been, and will not be, registered under the United States Securities Act of 1933, as amended (the **'U.S. Securities Act**''), or any state securities laws, and accordingly, may not be offered or sold to, or for the account or benefit of, persons in the United States or "U.S. persons," as such term is defined in Regulation S promulgated under the U.S. Securities Act (**''U.S. Persons**''), except in compliance with the registration requirements of the U.S. Securities Act and applicable state securities requirements or pursuant to exemptions therefrom. This press release does not constitute an offer to sell or a solicitation of an offer to buy any of the Company's securities to, or for the account or benefit of, persons in the United States or U.S. Persons.

CONTACT INFORMATION

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# WARRANT INDENTURE

Providing for the Issue of Common Share Purchase Warrants

BETWEEN

# TITAN MEDICAL INC.

- and -

# COMPUTERSHARE TRUST COMPANY OF CANADA

Dated as of March 16, 2017

# ARTICLE I INTERPRETATION

| ARTICLE | I INTERPRETATION                                    | 1  |
|---------|-----------------------------------------------------|----|
| 1.1     | Definitions                                         | 1  |
| 1.2     | Number and Gender                                   | 6  |
| 1.3     | Interpretation Not Affected by Headings, Etc        | 6  |
| 1.4     | Day Not a Business Day                              | 6  |
| 1.5     | Governing Law                                       | 7  |
| 1.6     | Currency                                            | 7  |
| 1.7     | Meaning of "Outstanding"                            | 7  |
| 1.8     | Severability                                        | 7  |
| 1.9     | Statutory References                                | 7  |
| ARTICLE | II ISSUE OF WARRANTS                                | 7  |
| 2.1     | Issue of Warrants                                   | 7  |
| 2.2     | Form and Terms of Warrants                          | 7  |
| 2.3     | Issue in Substitution for Lost Warrant Certificates | 8  |
| 2.4     | Non-Certificated Deposit                            | 9  |
| 2.5     | Warrantholder not a Shareholder                     | 11 |
| 2.6     | Warrants to Rank Pari Passu                         | 11 |
| 2.7     | Signing of Warrant Certificates                     | 11 |
| 2.8     | Certification by the Warrant Agent                  | 12 |
| 2.9     | Legended Warrant Certificates                       | 12 |
| 2.10    | Copy of Indenture                                   | 14 |
|         | III EXCHANGE AND OWNERSHIP OF WARRANTS; NOTICES     | 14 |
| 3.1     | Exchange of Warrant Certificates                    | 14 |
| 3.2     | Registration of Warrants                            | 15 |
| 3.3     | Transfer of Warrants                                | 16 |
| 3.4     | Ownership of Certificates                           | 17 |
| 3.5     | Evidence of Ownership                               | 17 |
| 3.6     | Notices                                             | 18 |
|         | IV EXERCISE OF WARRANTS                             | 18 |
| 4.1     | Method of Exercise of Warrants                      | 18 |
| 4.2     | Effect of Exercise of Warrants                      | 20 |
| 4.3     | Subscription for Less than Entitlement              | 21 |
|         |                                                     |    |

| 4.4   | No Fractional Common Shares                                                                                       | 21 |
|-------|-------------------------------------------------------------------------------------------------------------------|----|
| 4.5   | Expiration of Warrant Certificates                                                                                | 21 |
| 4.6   | Cancellation of Surrendered Warrants                                                                              | 21 |
| 4.7   | Accounting and Recording                                                                                          | 22 |
| 4.8   | Prohibition on Exercise by U.S. Persons; Exception                                                                | 22 |
| ARTIC | LE V ADJUSTMENT OF SUBSCRIPTION RIGHTS AND EXERCISE PRICE .                                                       | 23 |
| 5.1   | Adjustment of Exercise Price and Number of Common Shares Purchasable Upon Exercise                                | 23 |
| 5.2   | Rules Regarding Calculation of Adjustment of Exercise Price and Number of Common Shares Purchasable Upon Exercise | 28 |
| 5.3   | Postponement of Subscription                                                                                      | 31 |
| 5.4   | Notice of Adjustment of Exercise Price and Number of Common Shares Purchasable Upon Exercise                      | 31 |
| ARTIC | LE VI PURCHASES BY THE COMPANY                                                                                    | 32 |
| 6.1   | Purchases of Warrants for Cancellation                                                                            | 32 |
| 6.2   | Optional Purchases by the Company                                                                                 | 32 |
| ARTIC | LE VII COVENANTS OF THE COMPANY                                                                                   | 32 |
| 7.1   | Covenants of the Company                                                                                          | 32 |
| 7.2   | Warrant Agent's Remuneration and Expenses                                                                         | 34 |
| 7.3   | Performance of Covenants by Warrant Agent                                                                         | 34 |
| 7.4   | Securities Filings                                                                                                | 34 |
| 7.5   | Certificates of No Default                                                                                        | 34 |
| ARTIC | LE VIII ENFORCEMENT                                                                                               | 35 |
| 8.1   | Suits by Warrantholders                                                                                           | 35 |
| 8.2   | Limitation of Liability                                                                                           | 36 |
| ARTIC | LE IX MEETINGS OF WARRANTHOLDERS                                                                                  | 37 |
| 9.1   | Right to Convene Meetings                                                                                         | 37 |
| 9.2   | Notice                                                                                                            | 37 |
| 9.3   | Chairman                                                                                                          | 37 |
| 9.4   | Quorum                                                                                                            | 37 |
| 9.5   | Power to Adjourn                                                                                                  | 38 |
| 9.6   | Show of Hands                                                                                                     | 38 |
| 9.7   | Poll and Voting                                                                                                   | 38 |
| 9.8   | Regulations                                                                                                       | 39 |
| 9.9   | Company, Warrant Agent and Warrantholders May be Represented                                                      | 39 |
|       |                                                                                                                   |    |

| 9.10      | Powers Exercisable by Extraordinary Resolution             | 40 |
|-----------|------------------------------------------------------------|----|
| 9.11      | Meaning of Extraordinary Resolution                        | 41 |
| 9.12      | Powers Cumulative                                          | 41 |
| 9.13      | Minutes                                                    | 42 |
| 9.14      | Instruments in Writing                                     | 42 |
| 9.15      | Binding Effect of Resolutions                              | 42 |
| 9.16      | Holdings by Company Disregarded                            | 42 |
| ARTICLE X | X SUPPLEMENTAL INDENTURES                                  | 43 |
| 10.1      | Provision for Supplemental Indentures for Certain Purposes | 43 |
| 10.2      | Successor Companies                                        | 44 |
| ARTICLE X | XI CONCERNING THE WARRANT AGENT                            | 44 |
| 11.1      | Indenture Legislation                                      | 44 |
| 11.2      | Rights and Duties of Warrant Agent                         | 44 |
| 11.3      | Evidence, Experts and Advisers                             | 45 |
| 11.4      | Action by Warrant Agent to Protect Interest                | 46 |
| 11.5      | Warrant Agent not Required to Give Security                | 46 |
| 11.6      | Protection of Warrant Agent                                | 46 |
| 11.7      | Replacement of Warrant Agent; Successor by Merger          | 47 |
| 11.8      | Conflict of Interest                                       | 48 |
| 11.9      | Warrant Agent Not to be Appointed Receiver                 | 48 |
| 11.10     | Payments by Warrant Agent                                  | 48 |
| 11.11     | Deposit of Securities                                      | 48 |
| 11.12     | Act, Error, Omission etc                                   | 49 |
| 11.13     | Indemnification                                            | 49 |
| 11.14     | Notice                                                     | 49 |
| 11.15     | Reliance by the Warrant Agent                              | 49 |
| 11.16     | Privacy                                                    | 50 |
| 11.17     | Anti-Money Laundering                                      | 50 |
| 11.18     | Force Majeure                                              | 51 |
| ARTICLE X | XII ACCEPTANCE OF TRUSTS BY WARRANT AGENT                  | 51 |
| 12.1      | Appointment and Acceptance of Functions                    | 51 |
| ARTICLE X | XIII GENERAL                                               | 51 |
| 13.1      | Notice to the Company and the Warrant Agent                | 51 |
| 13.2      | Time of the Essence                                        | 52 |
|           |                                                            |    |

| 13.3       | Counterparts and Formal Date                                                                        | 52 |
|------------|-----------------------------------------------------------------------------------------------------|----|
| 13.4       | Discretion of Directors                                                                             | 53 |
| 13.5       | Satisfaction and Discharge of Indenture                                                             | 53 |
| 13.6       | Provisions of Indenture and Warrant Certificates for the Sole Benefit of Parties and Warrantholders | 53 |
| 13.7       | Common Shares or Warrants Owned by the Company or its Subsidiaries Certificates to be Provided      | 53 |
| Schedule ' | "A" Form of Warrant Certificate                                                                     | 1  |
| Schedule   | "B" Form of Declaration For Removal of U.S. Legend                                                  | 1  |

#### THIS WARRANT INDENTURE dated as of the 16 day of March, 2017.

## BETWEEN:

TITAN MEDICAL INC., a corporation existing under the laws of the Province of Ontario

(hereinafter called the "**Company**")

- and -

#### COMPUTERSHARE TRUST COMPANY OF CANADA, a trust company licensed to carry on business in all Provinces in Canada

(hereinafter called the "Warrant Agent")

WHEREAS the Company proposes to issue and sell up to 10,733,600 Warrants (as hereinafter defined) pursuant to the Prospectus (as hereinafter defined) and this Indenture;

AND WHEREAS pursuant to this Indenture, each whole Warrant shall entitle the registered holder thereof to purchase one Common Share (as hereinafter defined) (subject to adjustment as herein provided) at the price and upon the terms and conditions herein set forth;

AND WHEREAS for such purpose the Company deems it necessary to create and issue Warrants constituted and issued in the manner hereinafter appearing and the Warrants shall be represented solely by Warrant Certificates (as hereinafter defined) issued under this Indenture;

AND WHEREAS all things necessary have been done and performed to make the Warrants and the Warrant Certificates (when certified by the Warrant Agent and issued as provided for in this Indenture) legal, valid and binding upon the Company with the benefits of and subject to the terms of this Indenture;

AND WHEREAS the representations and statements of fact contained in the above recitals are those of the Company and not of the Warrant Agent;

NOW THEREFORE THIS INDENTURE WITNESSES that for good and valuable consideration mutually given and received, the receipt and sufficiency of which is hereby acknowledged, it is hereby agreed and declared as follows:

#### ARTICLE I INTERPRETATION

#### 1.1 Definitions

In this Indenture, unless there is something in the subject matter or context inconsistent therewith, the terms defined in this Section or elsewhere herein shall have the respective meanings specified in this Section or elsewhere herein:

- (a) "Accredited Investor" means an investor meeting the criteria set forth in Rule 501(a)(1), (2), (3) or (7) of Regulation D;
- (b) "Affiliate" has the meaning ascribed thereto in the Securities Act (Ontario), as amended or replaced from time to time;
- (c) "Agent" means Bloom Burton Securities Inc.;
- (d) "Authenticated" means (a) with respect to the issuance of a Warrant Certificate, one which has been duly signed by the Corporation and authenticated by manual signature of an authorized officer of the Warrant Agent, (b) with respect to the issuance of an Uncertificated Warrant, one in respect of which the Warrant Agent has completed all Internal Procedures such that the particulars of such Uncertificated Warrant as required by Section 2.9 are entered in the register of Warrantholders, "Authenticate", "Authenticating" and "Authentication" have the appropriate correlative meanings;
- (e) "Business Day" means a day which is not Saturday or Sunday or a statutory holiday in the City of Toronto or a day on which the principal office of the Warrant Agent in the City of Toronto is closed;
- (f) "Beneficial Owner" means a person that has a beneficial interest in the Warrant that is represented by a Warrant Certificate or Uncertificated Warrant registered in the name of CDS or its nominee, the purposes of being held by or on behalf of CDS as custodians for CDS Participants;
- (g) "Capital Reorganization" has the meaning attributed thereto in subsection 5.1(d);
- (h) "CDS" or the "Depository" means CDS Clearing and Depository Services Inc. or its nominee;
- (i) "CDS Participant" means a broker, dealer, bank or other financial institution or other person for whom, from time to time, CDS effects book entries for the Warrants deposited with CDS;
- (j) "Closing Date" has the meaning ascribed to such term in the Prospectus;
- (k) "Common Shares" means the common shares in the capital of the Company as such shares exist at the close of business on the date hereof and, in the event that there shall occur a change in respect of or affecting the Common Shares referred to in Section 5.1 (whether or not such change shall result in an adjustment in the Exercise Price), the term "Common Shares" shall mean the shares, other securities or other property which a Warrantholder is entitled to purchase upon the exercise of Warrants resulting from such change;
- (1) "Common Share Reorganization" has the meaning attributed thereto in subsection 5.1(a);

- (m) "Company" means Titan Medical Inc., a corporation existing under the laws of the Province of Ontario, and its lawful successors from time to time;
- (n) "Company's Auditors" means the chartered accountant or firm of chartered accountants duly appointed as auditor or auditors of the Company from time to time;
- (o) "Confirmation" means a confirmation sent by CDS to the Warrant Agent in connection with the exercise of a Warrant by a Beneficial Owner through a CDS Participant;
- (p) "Counsel" means a barrister or solicitor (who may be an employee of the Company) or a firm of barristers and solicitors (who may be counsel to the Company), in both cases acceptable to the Warrant Agent, acting reasonably;
- (q) "**Court**" has the meaning attributed thereto in subsection 11.7(1);
- (r) "Current Market Price" at any date, means the volume weighted average price per share at which the Common Shares have traded:
  - (i) on the TSX;
  - (ii) if the Common Shares are not listed on the TSX, on any stock exchange upon which the Common Shares are listed as may be selected for this purpose by the directors, acting reasonably and in good faith; or
  - (iii) if the Common Shares are not listed on any stock exchange, on any over-the- counter market;

during the 20 consecutive trading days (on each of which at least 500 Common Shares are traded in board lots) ending the second trading day before such date and the weighted average price shall be determined by dividing the aggregate sale price of all Common Shares sold in board lots on the exchange or market, as the case may be, during such 20 consecutive trading days by the number of Common Shares sold, or if not traded on any recognized market or exchange, as determined by the directors of the Company acting reasonably;

- (s) "Date of Issue" for a particular Warrant means the date on which the Warrant is actually issued by or on behalf of the Company;
- (t) "Director" means a director of the Company for the time being, and, unless otherwise specified herein, reference to "action by the Directors" means action by the Directors of the Company as a board, or whenever duly empowered, action by any committee of such board;
- (u) "Dividend Paid in the Ordinary Course" means a dividend paid on the Common Shares in any fiscal year of the Company in cash, provided that the aggregate amount of such dividends does not in such fiscal year exceed 5% of the Exercise Price, and for such purpose the amount of any dividend paid in shares shall be the aggregate stated capital of such shares, and the amount of any dividend paid in other than cash or shares shall be the fair market value of such dividend as determined by a resolution passed by the Board of Directors of the Company, subject, if applicable, to the prior consent of any stock exchange or any other over-the-counter market on which the Common Shares are traded;

- (v) "Exercise Date" with respect to any Warrant means the date on which the Warrant Certificate representing such Warrant is surrendered for exercise in accordance with the provisions of Article IV;
- (w) "Exercise Period" means the period commencing on the time of issue on the Date of Issue and ending at the Time of Expiry;
- (x) "Exercise Price" means a price per Common Share of C\$0.50 unless such price shall have been adjusted in accordance with the provisions of Section 5.1, in which case it shall mean such adjusted price in effect at such time;
- (y) "Extraordinary Resolution" has the meaning attributed thereto in Section 9.11;
- (z) "Filing Jurisdiction" means any of British Columbia, Alberta and Ontario;
- (aa) "Internal Procedures" means in respect of the making of any one or more entries to, changes in or deletions of any one or more entries in the register at any time (including without limitation, original issuance or registration of transfer of ownership) the minimum number of the Warrant Agent's internal procedures customary at such time for the entry, change or deletion made to be complete under the operating procedures followed at the time by the Warrant Agent, it being understood that neither preparation and issuance shall constitute part of such procedures for any purpose of this definition;
- (bb) "Offering" has the meaning ascribed to such term in the Prospectus;
- (cc) "Offshore Transaction" means "offshore transaction" as that term is defined in Regulation S;
- (dd) "Person" means an individual, a corporation, a partnership, a syndicate, a trustee or any unincorporated organization and words importing persons are intended to have a similarly extended meaning;
- (ee) "Prospectus" means the prospectus supplement dated March 10, 2017 to the short form base shelf prospectus of the Company dated August 18, 2015;
- (ff) "Regulation D" means Regulation D adopted by the SEC under the U.S. Securities Act;
- (gg) "Regulation S" means Regulation S adopted by the SEC under the U.S. Securities Act;
- (hh) "Rights Offering" has the meaning attributed thereto in subsection 5.1(b);
- (ii) "Rights Period" has the meaning attributed thereto in subsection 5.1(b);
- (jj) "SEC" means the United States Securities and Exchange Commission;

- (kk) "Securities" means the Common Shares and Warrants;
- (II) "Securities Laws" means, collectively, the applicable securities laws of the Filing Jurisdiction, the regulations, rules, rulings and orders made thereunder, the applicable published policy statements issued by the applicable securities commissions thereunder, and the securities legislation and published policies of each Filing Jurisdiction;
- (mm) "Shareholder" means a holder of record of one or more Common Shares;
- (nn) "Special Distribution" has the meaning attributed thereto in subsection 5.1(c);
- (oo) "Subsidiary of the Company" means a corporation of which voting securities carrying a majority of the votes attached to all voting securities are held, directly or indirectly other than by way of security only, by or for the benefit of the Company, the Company and one or more subsidiaries thereof, or one or more subsidiaries of the Company; and, as used in this definition, voting securities means securities of a class or series or classes or series carrying a voting right to elect directors under all circumstances provided that, for the purposes hereof, securities which only carry the right to vote conditionally on the happening of an event shall not be considered voting securities whether or not such event shall have happened nor shall any securities be deemed to cease to be voting securities solely by reason of a right to vote accruing to securities of another class or series or series or series or the happening of such event;
- (pp) "this Warrant Indenture", "this Indenture", "herein", "hereby", and similar expressions mean and refer to this Indenture and any indenture, deed or instrument supplemental or ancillary hereto; and the expressions "Article", "Section", and "subsection" followed by a number mean and refer to the specified Article, Section or subsection of this Indenture;
- (qq) "Time of Expiry" means 5:00 p.m. (Toronto time) on March 16, 2021 (being the date that is 48 months after the date of this Indenture);
- (rr) "TSX" means the Toronto Stock Exchange;
- (ss) "Uncertificated Warrant" means any Warrant which is not issued as part of a Warrant Certificate;
- (tt) "Unit" has the meaning ascribed to such term in the Prospectus;
- (uu) "United States" means the United States of America as that term is defined in Regulation S;
- (vv) "U.S. Exchange Act' means the United States Securities Exchange Act of 1934, as amended;
- (ww) "U.S. Person" means a "U.S. person" as that term is defined in Regulation S;
- (xx) "U.S. Securities Act" means the United States Securities Act of 1933, as amended;

- (yy) "Warrant" means each whole common share purchase warrant of the Company issued or to be issued hereunder entitling the holder thereof to purchase one Common Share for each whole Warrant upon payment of the Exercise Price; provided that in each case the number and/or class of shares or securities receivable on the exercise of the Warrant may be subject to increase or decrease or change in accordance with the terms and provisions hereof;
- (zz) "Warrant Agent" means Computershare Trust Company of Canada, or its successors hereunder;
- (aaa) "Warrant Certificate" means a certificate representing one or more Warrants substantially in the form set forth in Schedule "A" hereto or such other form as may be approved by the Company, the Agent and the Warrant Agent. To the extent that the Warrants are in the non-certificated issuer system, then this term shall mean the appropriate evidence of such warrants pursuant to the non-certificated issuer system;
- (bbb) "Warrantholders" or "holders" without reference to Common Shares means the Persons whose names are entered for the time being on the register maintained pursuant to Section 3.2(1);
- (ccc) "Warrantholders' Request" means an instrument signed in one or more counterparts by Warrantholders entitled to purchase, in the aggregate, not less than 10% of the aggregate number of Warrants then unexercised and outstanding, which requests the Warrant Agent to take some action or proceeding specified therein; and
- (ddd) "written order of the Company", "written request of the Company", "written consent of the Company" and "certificate of the Company" and any other document required to be signed by the Company, means, respectively, a written order, request, consent, certificate or other document signed in the name of the Company by any officer or director and may consist of one or more instruments so executed.

### 1.2 Number and Gender

Unless the context otherwise requires, words importing the singular include the plural and vice versa and words importing gender include all genders.

#### 1.3 Interpretation Not Affected by Headings, Etc.

The division of this Indenture into Articles, Sections and subsections, the provision of a table of contents and the insertion of headings are for convenience of reference only and shall not affect the construction or interpretation of this Indenture or the Warrant Certificates.

## 1.4 Day Not a Business Day

In the event that any day on or before which any action is required to be taken hereunder is not a Business Day, then such action shall be required to be taken on or before the requisite time on the next succeeding day that is a Business Day.

#### 1.5 Governing Law

This Indenture and the Warrant Certificates shall be governed by and construed in accordance with the laws of the Province of Ontario and the laws of Canada applicable therein and shall be treated in all respects as Ontario contracts.

#### 1.6 Currency

Except as otherwise specified herein, all dollar amounts herein are expressed in lawful money of Canada.

#### 1.7 Meaning of "Outstanding"

Every Warrant represented by a Warrant Certificate countersigned and delivered by the Warrant Agent hereunder shall be deemed to be outstanding until it shall be cancelled or exercised pursuant to Article IV, provided that where a new Warrant Certificate has been issued pursuant to Section 2.3 hereof to replace one which has been mutilated, lost, destroyed or stolen, the Warrants represented by only one of such Warrant Certificates shall be counted for the purpose of determining the aggregate number of Warrants outstanding.

#### 1.8 Severability

In the event that any provision hereof shall be determined to be invalid, illegal or unenforceable in any respect, the validity, legality and enforceability of the remainder of such provision and any other provision hereof shall not be affected or impaired thereby.

#### 1.9 Statutory References

In this Indenture, unless something in the subject matter or context is inconsistent therewith or unless otherwise herein provided, a reference to any statute is to that statute as now enacted or as the same may from time to time be amended, re-enacted or replaced and includes any regulation made thereunder.

# ARTICLE II ISSUE OF WARRANTS

#### 2.1 Issue of Warrants

Up to 10,733,600 Warrants are hereby created and authorized to be issued and certificates evidencing such Warrants as have been issued shall be executed by the Company, certified by or on behalf of the Warrant Agent upon the written order of the Company and delivered in accordance with this Article.

## 2.2 Form and Terms of Warrants

(1) Subject to subsection 2.2(2), each whole Warrant authorized to be issued hereunder shall entitle the holder thereof to purchase upon due exercise and upon due execution and endorsement of the subscription form on the Warrant Certificate or other instrument of subscription in such form as the Warrant Agent and/or the Company may from time to time prescribe and upon payment of the Exercise Price in effect on the Exercise Date, one Common Share at any time during the Exercise Period, in accordance with the provisions of this Indenture.

- (2) The number of Common Shares which may be purchased pursuant to the Warrants and the Exercise Price shall be adjusted in the events and in the manner specified in Section 5.1.
- (3) The Warrants may be issued in both certificated and uncertificated form, except that all Warrants originally issued to a U.S. Person, a person in the United States or to a person for the account or benefit of a U.S. Person or a person in the United States, will be issued in certificated form only. Warrant Certificates for the Warrants shall be substantially in the form attached as Schedule "A" hereto, with such additions, variations and changes as may be required or permitted by the terms of this Indenture, and which may from time to time be agreed upon by the Warrant Agent and the Company, and shall bear such legends and such distinguishing letters and numbers as the Company may, with the approval of the Warrant Agent, prescribe. The Warrant Certificates shall be dated as of the date hereof.
- (4) Subject to subsection 2.2(5), Warrant Certificates shall be issuable in any denomination.
- (5) If a Warrantholder is entitled to a fraction of a Warrant the number of Warrants issued to that Warrantholder shall be rounded down to the nearest whole Warrant.
- (6) The Warrant Certificates may be engraved, lithographed or printed (the expression "printed" including for purposes hereof both original typewritten material as well as mimeographed, mechanically, photographically, photostatically or electronically reproduced, typewritten or other written material), or partly in one form and partly in another, as the Company, with the approval of the Warrant Agent, may determine. No change in the form of the Warrant Certificate shall be required by reason of any adjustment made pursuant to Section 5.1 in the number and/or class of securities or type of securities that may be acquired pursuant to the Warrants.

# 2.3 Issue in Substitution for Lost Warrant Certificates

(1) In the event that any Warrant Certificates issued and certified under this Indenture shall be mutilated, lost, destroyed or stolen, the Company, subject to applicable law, shall issue and thereupon the Warrant Agent shall certify and deliver, a new certificate of like tenor, and bearing the same legends, as the one mutilated, lost, destroyed or stolen in exchange for and in place of and upon cancellation of such mutilated certificate, or in lieu of and in substitution for such lost, destroyed or stolen certificate, and the substituted certificate shall be in a form approved by the Warrant Agent and shall be entitled to the benefits hereof and shall rank equally in accordance with its terms with all other Warrant Certificates issued or to be issued hereunder.

(2) The applicant for the issue of a new certificate pursuant to this Section 2.3 shall bear the reasonable cost of the issue thereof and in case of loss, destruction or theft shall, as a condition precedent to the issue thereof, furnish to the Company and to the Warrant Agent such evidence of ownership and of the loss, destruction or theft of the certificate so lost, destroyed or stolen as shall be satisfactory to the Company and to the Warrant Agent in their sole discretion, acting reasonably, and such applicant shall also be required to furnish an indemnity and surety bond in amount and form satisfactory to the Company and the Warrant Agent, each acting reasonably, to save each of them harmless, and shall pay the reasonable expenses, charges and any taxes applicable thereto to the Company and the Warrant Agent in connection therewith.

### 2.4 Non-Certificated Deposit

- (1) Subject to the provisions hereof, at the Company's option, Warrants, other than those issued pursuant to a U.S. Person, a person in the United States or to a person for the account or benefit of a U.S. Person or a person in the United States (which will be evidenced in certificated form only bearing the legends set forth in Section 2.9), will be issued and registered in the name of CDS or its nominee and:
  - (A) may be directly deposited by the Warrant Agent to CDS; and
  - (B) shall be identified by the CUSIP/ISIN 88830X264 / CA88830X2648
- (2) If the Company issues Warrants in a non-certificated format, Beneficial Owners of such Warrants registered and deposited with CDS shall not receive Warrant Certificates in definitive form and shall not be considered owners or holders thereof under this Indenture or any supplemental agreement. Beneficial interests in Warrants registered and deposited with CDS will be represented only through the non-certificated inventory system administered by CDS. Transfers of Warrants registered and deposited with CDS between CDS Participants shall occur in accordance with the rules and procedures of CDS. Neither the Company nor the Warrant Agent shall have any responsibility or liability for any aspects of the records relating to or payments made by CDS or its nominee, on account of the beneficial interests in Warrants registered and deposited with CDS. Nothing herein shall prevent the Beneficial Owners of Warrants registered and deposited with CDS from voting such Warrants using duly executed proxies.
- (3) All references herein to actions by, notices given or payments made to Warrantholders shall, where Warrants are held through CDS, refer to actions taken by, or notices given or payments made to, CDS upon instruction from the CDS Participants in accordance with its rules and procedures. For the purposes of any provision hereof requiring or permitting actions with the consent of or at the direction of Warrantholders evidencing a specified percentage of the aggregate Warrants outstanding, such direction or consent may be given by Beneficial Owners acting through CDS and the CDS Participants owning Warrants evidencing the requisite percentage of the Warrants. The rights of a Beneficial Owner whose Warrants are held through CDS shall be exercised only through CDS and the CDS Participants and shall be limited to those established by law and agreements between such Beneficial Owners and CDS and the CDS Participants upon instructions from the CDS Participants. Each of the Warrant Agent and the Company may deal with CDS for all purposes (including the making of payments) as the authorized representative of the respective Warrants and such dealing with CDS shall constitute satisfaction or performance, as applicable, of their respective obligations hereunder.

- (4) For so long as Warrants are held through CDS, if any notice or other communication is required to be given to Warrantholders, the Warrant Agent will give such notices and communications to CDS.
- (5) If CDS resigns or is removed from its responsibility as Depository and the Warrant Agent is unable or does not wish to locate a qualified successor, CDS shall provide the Warrant Agent with instructions for registration of Warrants in the names and in the amounts specified by CDS and the Company shall issue and the Warrant Agent shall certify and deliver the aggregate number of Warrants then outstanding in the form of definitive Warrant Certificates representing such Warrants.
- (6) Every Warrant Authenticated upon registration of transfer of an Uncertificated Warrant, or in exchange for or in lieu of an Uncertificated Warrant or any portion thereof, whether pursuant to this Section 2.4 or otherwise, shall be Authenticated in the form of, and shall be, an Uncertificated Warrant, unless such Warrant is registered in the name of a person other than the Depository for such Uncertificated Warrant or a nominee thereof.
- (7) The rights of Beneficial Owners who hold securities entitlements in respect of the Warrants through the non-certificated inventory system administered by CDS shall be limited to those established by applicable law and agreements between the Depository and the CDS Participants and between such CDS Participants and the Beneficial Owners who hold securities entitlements in respect of the Warrants through the non-certificated inventory system administered by CDS, and such rights must be exercised through a CDS Participant in accordance with the rules and procedures of the Depository.
- (8) Notwithstanding anything herein to the contrary, neither the Company nor the Warrant Agent nor any agent thereof shall have any responsibility or liability for:
  - (A) the electronic records maintained by the Depository relating to any ownership interests or any other interests in the Warrants or the depository system maintained by the Depository, or payments made on account of any ownership interest or any other interest of any person in any Warrants represented by an electronic position in the non-certificated inventory system administered by CDS (other than the Depository or its nominee);

- (B) for maintaining, supervising or reviewing any records of the Depository or any CDS Participant relating to any such interest; or
- (C) any advice or representation made or given by the Depository or those contained herein that relate to the rules and regulations of the Depository or any action to be taken by the Depository on its own direction or at the direction of any CDS Participant.
- (9) The Company may terminate the application of this Section 2.4 in its sole discretion in which case all Warrants shall be evidenced by Warrant Certificates registered in the name of a person other than the Depository.
- (10) Notwithstanding the foregoing, upon request of the Beneficial Owner, through the Depository, the Warrant Agent shall issue a Warrant Certificate in respect of the interest of such Beneficial Owner, in which case the Uncertificated Warrant representing such Warrants shall be reduced accordingly and such Warrants shall be duly registered as directed by the Depository.

#### 2.5 Warrantholder not a Shareholder

Nothing in this Indenture or in the holding of a Warrant evidenced by a Warrant Certificate or otherwise, shall be construed as conferring upon a Warrantholder any right or interest whatsoever as a Shareholder of the Company, including, but not limited to, the right to vote at, to receive notice of, or to attend, meetings of shareholders or any other proceedings of the Company, nor entitle the holder to any right or interest in respect thereof except as herein and in the Warrants expressly provided.

## 2.6 Warrants to Rank Pari Passu

All Warrants shall rank pari passu, whatever may be the respective Dates of Issue of the same.

## 2.7 Signing of Warrant Certificates

The Warrant Certificates shall be signed by any one of the directors or officers of the Company and may, but need not, be under the corporate seal of the Company or a reproduction thereof. The signature of any such director or officer may be mechanically reproduced and Warrant Certificates bearing such mechanically reproduced signatures shall be binding upon the Company as if they had been manually signed by such director or officer. Notwithstanding that the person whose manual or mechanically reproduced signature appears on any Warrant Certificate as a director or officer may no longer holds office at the date of issue of the Warrant Certificate or at the date of certification or delivery thereof, any Warrant Certificate signed as aforesaid shall, subject to Section 2.7, be valid and binding upon the Company and the registered holder thereof will be entitled to the benefits of this Indenture.

#### 2.8 Certification by the Warrant Agent

- (1) No Warrant Certificate shall be issued or, if issued, shall be valid for any purpose or entitle the registered holder to the benefit hereof or thereof until it has been certified by manual signature by or on behalf of the Warrant Agent, and such certification by the Warrant Agent upon any Warrant Certificate shall be conclusive evidence as against the Company that the Warrant Certificate so certified has been duly issued hereunder and that the holder is entitled to the benefit hereof.
- (2) The certification of the Warrant Agent on Warrant Certificates issued hereunder shall not be construed as a representation or warranty by the Warrant Agent as to the validity of this Indenture or the Warrant Certificates (except the due certification thereof) and the Warrant Agent shall in no respect be liable or answerable for the use made of the Warrant Certificates or any of them or of the consideration therefor nor for any breach by the Company of its covenants herein, except as otherwise specified therein.

#### 2.9 Legended Warrant Certificates

- (1) The Warrant Agent understands and acknowledges that the Warrants and Common Shares issuable upon exercise of the Warrants have not been, and will not be, registered under the U.S. Securities Act or the securities laws of any state of the United States.
- (2) Each Warrant Certificate originally issued to a U.S. Person, a person in the United States or to a person for the account or benefit of a U.S. Person or a person in the United States, and all certificates representing Common Shares issued upon exercise of such Warrants, as well as all certificates issued in exchange thereof or in substitution thereof, shall, until such time as the same is no longer required under applicable requirements of the U.S. Securities Act and applicable state securities laws, bear a legend substantially to the following effect:

THE SECURITIES REPRESENTED HEREBY [For Warrants Include: AND THE SECURITIES ISSUABLE UPON EXERCISE HEREOF] HAVE NOT BEEN AND WILL NOT BE REGISTERED UNDER THE UNITED STATES SECURITIES ACT OF 1933, AS AMENDED (THE "U.S. SECURITIES ACT") OR U.S. STATE SECURITIES LAWS. THESE SECURITIES MAY BE OFFERED, SOLD, PLEDGED OR OTHERWISE TRANSFERRED, DIRECTLY OR INDIRECTLY, ONLY (A) TO TITAN MEDICAL INC. (THE "CORPORATION"), (B) OUTSIDE THE UNITED STATES IN COMPLIANCE WITH RULE 904 OF REGULATION S UNDER THE U.S. SECURITIES ACT AND IN COMPLIANCE WITH APPLICABLE LOCAL LAWS AND REGULATIONS, (C) IN COMPLIANCE WITH THE EXEMPTION FROM THE REGISTRATION REQUIREMENTS UNDER THE U.S. SECURITIES ACT PROVIDED BY (I) RULE 144 OR (II) RULE 144A THEREUNDER, IF AVAILABLE, AND IN EACH CASE IN ACCORDANCE WITH APPLICABLE U.S. STATE SECURITIES LAWS, (D) IN ANOTHER TRANSACTION THAT DOES NOT REQUIRE REGISTRATION UNDER THE U.S. SECURITIES ACT OR ANY APPLICABLE STATE SECURITIES LAWS, OR (E) PURSUANT TO AN EFFECTIVE REGISTRATION STATEMENT UNDER THE U.S. SECURITIES ACT, PROVIDED THAT, IN THE CASE OF TRANSFERS PURSUANT TO (C), (D) or (E) ABOVE, THE HOLDER HAS, PRIOR TO SUCH TRANSFER, FURNISHED TO THE CORPORATION AN OPINION OF COUNSEL OR OTHER EVIDENCE OF EXEMPTION, IN EITHER CASE REASONABLY SATISFACTORY TO THE CORPORATION THAT THE TRANSACTION DOES NOT REQUIRE REGISTRATION UNDER THE U.S. SECURITIES ACT OR ANY APPLICABLE STATE SECURITIES LAWS. DELIVERY OF THIS CERTIFICATE "GOOD DELIVERY" IN SETTLEMENT OF TRANSACTIONS ON STOCK MAY NOT CONSTITUTE EXCHANGES IN CANADA.

[For Warrants Only: THIS WARRANT AND THE SECURITIES ISSUABLE UPON EXERCISE HEREOF HAVE NOT BEEN REGISTERED UNDER THE UNITED STATES SECURITIES ACT OF 1933, AS AMENDED (THE "U.S. SECURITIES ACT"). THIS WARRANT MAY NOT BE EXERCISED BY OR ON BEHALF OF A U.S. PERSON OR PERSON IN THE UNITED STATES UNLESS THE SHARES ISSUABLE UPON EXERCISE OF THIS WARRANT HAVE BEEN REGISTERED UNDER THE U.S. SECURITIES ACT AND THE APPLICABLE SECURITIES LEGISLATION OF ANY SUCH STATE OR EXEMPTIONS FROM SUCH REGISTRATION REQUIREMENTS ARE "UNITED STATES" AND "U.S. PERSON" ARE AS DEFINED BY REGULATION S UNDER THE U.S. SECURITIES ACT.]

provided that if, the Securities are being sold in an off-shore transaction and in compliance with the requirements of Rule 904 of Regulation S under the U.S. Securities Act and in compliance with Canadian local laws and regulations, the legend may be removed by providing a declaration to Computershare Trust Company of Canada as registrar and transfer agent for the Securities to the effect substantially in the form attached as Schedule B, subject to the Company's prior approval and which approval shall not be unreasonably withheld or delayed, together with such other evidence as the Company or the registrar and transfer agent for the Securities and principal without registration under the U.S. Securities Act and any applicable state securities laws and the Company shall instruct Computershare Trust Company of Canada to remove such legend within three business days of receipt of such declaration; and provided further, that, if any of the Securities are being sold pursuant to clause (C) in the legend above, under the U.S. Securities Act, the legend may be removed by delivery to Computershare Trust Company of Canada of an opinion of counsel of recognized standing in form and substance satisfactory to the Company, to the effect that the legend is no longer required under applicable requirements of the U.S. Securities Act or state securities are satisfactory to the Company, to the effect that the legend is no longer required under applicable requirements of the U.S. Securities Act or state securities laws

(3) If a Warrant Certificate is tendered for transfer and bears the legend set forth in subsection 2.9(2) hereof and the holder thereof has not obtained the prior written consent of the Company, the Warrant Agent or the registrar and transfer agent, as the case may be, shall not register such transfer unless the holder complies with the requirements of the said subsection 2.9(2) hereof.

## 2.10 Copy of Indenture

The Company shall, on the written request of the Warrantholder and without charge, provide the Warrantholder with a copy of this Indenture. A copy of this Indenture will also be available on the Company's profile on www.sedar.com.

## ARTICLE III EXCHANGE AND OWNERSHIP OF WARRANTS; NOTICES

## 3.1 Exchange of Warrant Certificates

- (1) Warrant Certificates entitling Warrantholders to purchase any specified number of Common Shares may, upon compliance with the reasonable requirements of the Warrant Agent, be exchanged for one or more Warrant Certificates in any other authorized denomination bearing the same legends representing in the aggregate an equal number of Warrants as the number of Warrants represented by the Warrant Certificates being exchanged. The Company shall sign all Warrant Certificates necessary to carry out exchanges as aforesaid and such Warrant Certificates shall be certified by or on behalf of the Warrant Agent.
- (2) Warrant Certificates may be exchanged only at the principal transfer office of the Warrant Agent in the City of Toronto, Ontario or at any other place that is designated by the Company with the approval of the Warrant Agent. Any Warrant Certificates tendered for exchange shall be surrendered to the Warrant Agent or its agents and cancelled.

(3) Except as otherwise herein provided, any Warrant Agent may charge the holder requesting an exchange a reasonable sum for each new Warrant Certificate issued in exchange for Warrant Certificate(s); and payment of such charges and reimbursement of the Warrant Agent or the Company for any and all stamp taxes or governmental or other charges required to be paid shall be made by such holder as a condition precedent to such exchange.

## 3.2 Registration of Warrants

- (1) The Company shall, at all times while any Warrants are outstanding, cause the Warrant Agent and its agents to maintain a register in which will be entered in alphabetical order the names, latest known addresses of the Warrantholders and particulars of the Warrants held by them, and a register of transfers in which shall be entered the particulars of all transfers of Warrants, such registers to be kept by and at the principal transfer office of the Warrant Agent in the City of Toronto.
- (2) At the office of the Warrant Agent during normal business hours, the holder of a Warrant may have such Warrant transferred in accordance with such reasonable requirements as the Warrant Agent may prescribe. The costs of any such transfer registration shall be borne by the transferee or presenter.
- (3) The registers referred to in this Section 3.2 shall at all reasonable times be open for inspection by the Company and by any Warrantholder. The Warrant Agent, when requested in writing so to do by the Company, shall furnish the Company with a list of names and addresses of the Warrantholders showing the number of Warrants held by each Warrantholder.
- (4) Once an Uncertificated Warrant has been Authenticated, the information set forth in the register with respect thereto at the time of Authentication may be altered, modified, amended, supplemented or otherwise changed only to reflect exercise or proper instructions to the Warrant Agent from the Warrantholder as provided herein, except that the Warrant Agent may act unilaterally to make purely administrative changes internal to the Warrant Agent and changes to correct errors. Each person who becomes a Warrantholder of an Uncertificated Warrant, by his, her or its acquisition thereof shall be deemed to have irrevocably (i) consented to the foregoing authority of the Warrant Agent to make such minor error corrections and (ii) agreed to pay to the Warrant Agent, promptly upon written demand, the full amount of all loss and expense (including without limitation reasonable legal fees of the Company and the Warrant Agent plus interest, at an appropriate then prevailing rate of interest to the Warrant Agent, sustained by the Company or the Warrant Agent as a proximate result of such error if but only if and only to the extent that such present or former Warrantholder realized any benefit as a result of such error and could reasonably have prevented, forestalled or minimized such loss and expense by prompt reporting of the error or avoidance of accepting benefits thereof whether or not such error is or should have been timely detected and corrected by the Warrant Agent; provided, that no person who is a bona fide purchaser shall have any such obligation to the Company or to the Warrant Agent.

## 3.3 Transfer of Warrants

- (1) No transfer of a Warrant will be valid unless entered on the register of transfers referred to in subsection 3.2(1), upon surrender to the Warrant Agent of the Warrant Certificate evidencing such Warrant, and a duly completed and executed Transfer Form as attached to the Warrant Certificate executed by the registered holder or his executors, administrators or other legal representatives or his or their attorney duly appointed by an instrument in writing in form and execution satisfactory to the Warrant Agent, and, upon compliance with the conditions herein and such reasonable requirements as the Warrant Agent may prescribe, including compliance with all applicable securities legislation, such transfer will be recorded on the register of transfers by the Warrant Agent. Notwithstanding the foregoing, if the Warrants are Uncertificated Warrants, the provisions of Section 3.2(4) shall apply.
- (2) The transferee of any Warrant will, after surrender to the Warrant Agent of the Warrant Certificate evidencing such Warrant as required by subsection 3.3(1) and upon compliance with all other conditions in respect thereof required by this Indenture or by applicable law, be entitled to be entered on the register of holders referred to in subsection 3.2(1) as the owner of such Warrant free from all equities or rights of set-off or counterclaim between the Company and the transferor or any previous holder of such Warrant, except in respect of equities of which the Company is required to take notice by statute or by order of a court of competent jurisdiction.
- (3) The Company will be entitled, and may direct the Warrant Agent, to refuse to recognize any transfer, or enter the name of any transferee, of any Warrant on the registers referred to in subsection 3.2(1), if such transfer would constitute a violation of the securities laws of any applicable jurisdiction or the rules, regulations or policies of any regulatory authority having jurisdiction. The Warrant Agent is entitled to assume compliance with all applicable securities legislation unless otherwise notified in writing by the Company. The Warrant Agent shall have no obligation to ensure or verify compliance with any applicable laws or regulatory requirements on the issue, exercise or transfer of any Warrants or any Common Shares issuable upon the exercise thereof provided such issue, exercise or transfer is effected in accordance with the terms of this Warrant Indenture.
- (4) If a Warrant Certificate tendered for transfer bears the legend set forth in subsection 2.9(2), the Warrant Agent shall not register such transfer unless the transferor has provided the Warrant Agent with the Warrant Certificate and complies with the requirements of the said subsection 2.9(2).

(5) If the Warrant Certificate tendered for transfer does not bear the legend set forth in subsection 2.9(2), the Warrant Agent shall not register such transfer unless the transfer or has provided the Warrant Agent with the Warrant Certificate and a completed and executed transfer form in the form included in the Warrant Certificate. Notwithstanding the foregoing, the Warrant Agent shall not register such transfer if the Warrant Agent has reason to believe that the transferee is a person in the United States or a U.S. Person or is acquiring the Warrants evidenced thereby for the account or benefit of a person in the United States or a U.S. Person.

## 3.4 Ownership of Certificates

- (1) Except in connection with the registration of Uncertificated Warrants, the Company and the Warrant Agent and their respective agents may deem and treat the holder of any Warrant Certificate as the absolute holder and owner of the Warrants evidenced thereby for all purposes, and the Company and the Warrant Agent shall not be affected by any notice or knowledge to the contrary and, without limiting the foregoing, shall not be bound by notice of any trust or be required to see to the execution thereof.
- (2) Subject to the provisions of this Indenture and applicable law, a Warrantholder shall be entitled to the rights evidenced by such Warrant Certificate free from all equities or rights of set-off or counterclaim between the Company and the original or any intermediate holder thereof and all persons may act accordingly and the receipt by any such holder of the Common Shares obtainable pursuant thereto shall be a good discharge to the Company and the Warrant Agent for the same and neither the Company nor the Warrant Agent shall be bound to inquire into the title of any such holder, except where the Company or the Warrant Agent of a court of competent jurisdiction.

#### 3.5 Evidence of Ownership

- (1) Upon receipt of a certificate of any bank, trust company or other depositary satisfactory to the Warrant Agent stating that the Warrants specified therein have been deposited by a named person with such bank, trust company or other depositary and will remain so deposited until the expiry of the period specified therein, the Company and the Warrant Agent may treat the person so named as the owner, and such certificate as sufficient evidence of the ownership by such person of such Warrants during such period, for the purpose of any requisition, direction, consent, instrument or other document to be made, signed or given by the holder of the Warrants so deposited.
- (2) The Company and the Warrant Agent may accept as sufficient evidence of the fact and date of the signing of any requisition, direction, consent, instrument or other document by any person, the signature, as witness, of any officer of any trust company, bank or depositary satisfactory to the Warrant Agent, the certificate of any notary public or other officer authorized to take acknowledgements of deeds to be recorded at the place where such certificate is made, that the person signing acknowledged to him the execution thereof, or a statutory declaration of a witness of such execution.

#### 3.6 Notices

Unless herein otherwise expressly provided, any notice to be given hereunder to the Warrantholders shall be deemed to be validly given if such notice is given by personal delivery or first class mail to the attention of the holder at the registered address of the holder recorded in the registers maintained by the Warrant Agent; provided that in the case of notice convening a meeting of the Warrantholders, the Company may require such publication of such notice, in such city or cities, as it may deem necessary for the reasonable protection of the Warrant holders or to comply with any applicable requirement of law or any stock exchange. Any notice so given shall be deemed to have been given on the day of delivery or three (3) Business Days after mailing. In determining under any provision hereof the date when notice of any meeting or other event must be given, the date of giving notice shall be included and the date of the meeting or other event shall be excluded. For greater certainty, all costs in connection with the giving of notices contemplated by this Section 3.6 shall be borne by the Company.

#### ARTICLE IV EXERCISE OF WARRANTS

#### 4.1 Method of Exercise of Warrants

- (1) Subject to Section 4.8, upon and subject to the provisions hereof, the registered holder of any whole Warrant may exercise the rights thereby conferred on him to purchase all or any part of the Common Shares to which such Warrant entitles the holder, by surrendering the Warrant Certificate representing such Warrants to the Warrant Agent during the Exercise Period at its principal transfer office in Toronto, Ontario (or at any other place or places that may be designated by the Company from time to time with the approval of the Warrant Agent), with a duly completed and executed subscription form of the registered holder or his executors, administrators or other legal representative or his attorney duly appointed by an instrument in writing in the form and manner satisfactory to the Warrant Agent, substantially in the form attached to the Warrant Certificate specifying the number of Common Shares subscribed for together with a certified cheque, money order or bank draft in lawful money of Canada payable to or to the order of the Company at par in Toronto, Ontario in an amount equal to the Exercise Price applicable at the time of such surrender in respect of each Common Share subscribed for. A Warrant Certificate with the duly completed and executed subscription form together with the payment of the Exercise Price shall be deemed to be surrendered only upon personal delivery thereof to or, if sent by mail or other means of transmission, upon actual receipt thereof by the Warrant Agent.
- (2) No Warrant represented by an Uncertificated Warrant may be exercised unless, prior to such exercise, the Warrantholder of such Warrant shall have taken all other action necessary to exercise such Warrant in accordance with this Indenture and the Internal Procedures. Notwithstanding anything to the contrary contained herein and subject to the Internal Procedures in force from time to time, a Beneficial Owner whose Warrants are represented by an Uncertificated Warrant who desires to exercise his or her Warrants must do so by causing a CDS Participant to deliver to CDS, on behalf of the Beneficial Owner, a written notice of the Beneficial Owner's intention to exercise Warrants in a manner acceptable to CDS. Forthwith upon receipt by CDS of such notice, as well as payment in an amount equal to the product obtained by multiplying the Exercise Price by the number of Common Shares subscribed for, CDS shall deliver to the Warrant Agent a Confirmation.

- (3) Payment by a Beneficial Owner representing the Exercise Price must be provided to the appropriate office of the CDS Participant in a manner acceptable to it. A notice in form acceptable to the CDS Participant and payment from such Beneficial Owner should be provided to the CDS Participant sufficiently in advance so as to permit the CDS Participant to deliver notice and payment to CDS and for CDS in turn to deliver notice and payment to the Warrant Agent prior to Expiry Time. CDS will initiate the exercise by way of the Confirmation and forward the Exercise Price electronically to the Warrant Agent and the Warrant Agent will execute the exercise by issuing to CDS through the non-certified inventory system administered by CDS the Common Shares to which the exercising Beneficial Owner is entitled pursuant to the exercise. Any expense associated with the exercise process will be for the account of the Beneficial Owner exercising the Warrants and/or the CDS Participant exercising the Warrants on its behalf.
- (4) Notwithstanding any provisions of this Warrant Indenture, a beneficial owner may exercise his Warrants or take any actions under this Warrant Indenture in accordance with the rules and procedures of CDS.
- (5) Any subscription referred to in this Section 4.1 shall be signed by the Warrantholder, shall specify the person(s) in whose name such Common Shares are to be issued, the address(es) of such person(s) and the number of Common Shares to be issued to each person, if more than one is so specified. If any of the Common Shares subscribed for are to be issued to (a) person(s) other than the Warrantholder, the signatures set out in the subscription referred to in subsection 4.1(1) shall be guaranteed by a major Canadian chartered bank, or by a medallion signature guaranteed from a member of a recognized Signature Medallion Guarantee Program and the Warrantholder shall pay to the Company all applicable transfer or similar taxes and the Company shall not be required to issue or deliver certificates evidencing Common Shares until such Warrantholder shall have paid to the Company the amount of such tax or shall have established to the satisfaction of the Company that such tax has been paid or that no tax is due.

(6) If, at the time of exercise of the Warrants, in accordance with the provisions of subsection 3.1(1), there are any trading restrictions on the Common Shares pursuant to applicable securities legislation or stock exchange requirements, the Company shall, on the advice of counsel, endorse any certificates representing the Common Shares to such effect. The Warrant Agent is entitled to assume compliance with all applicable securities legislation unless otherwise notified in writing by the Company.

## 4.2 Effect of Exercise of Warrants

- (1) Upon compliance by the Warrantholder with the provisions of Section 4.1, the Common Shares so subscribed for shall be deemed to have been issued and the Person or Persons to whom such Common Shares are to be issued shall be deemed to have become the holder or holders of record of such Common Shares on the Exercise Date unless the share registers maintained by the transfer agent for the Common Shares shall be closed on such date, in which case the Common Shares so subscribed for shall be deemed to have been issued, and such Person or Persons shall be deemed to have become the holder or holders of record of such Common Shares on the taxer or holders of neuron shares on the date on which such registers were reopened and such Common Shares shall be issued at the Exercise Price in effect on the Exercise Date. To the extent the opening of the registers remains within the control of the Warrant Agent, the Company and the Warrant Agent shall cause such registers to be open on Business Days.
- (2) Within three (3) Business Days following the due exercise of a Warrant pursuant to Section 4.1, the Warrant Agent shall deliver to the Company a notice setting forth the particulars of all Warrants exercised, and the persons in whose names the Common Shares are to be issued (as applicable) and the addresses of such holders of the Common Shares.
- (3) Subject to Section 4.1(3), within five (5) Business Days of the due exercise of a Warrant pursuant to Section 4.1, or within (10) Business Days of the due exercise of a Warrant if such exercise would result in a fraction of a Common Share, the Company shall cause its transfer agent to mail to the person in whose name the Common Shares so subscribed for are to be issued, as specified in the subscription completed on the Warrant Certificate, at the address specified in such subscription, a certificate or certificates for the Common Shares to which the Warrantholder is entitled and, if applicable, shall cause the Warrant Agent to mail a Warrant Certificate representing any Warrants not then exercised.
- (4) If at the time of exercise of the Warrants there remain trading restrictions on the Common Shares acquired upon such exercise pursuant to applicable securities legislation or policy of any applicable regulatory body, the Company may, upon the advice of Counsel, endorse any Common Share certificates to such effect. Furthermore, the Company shall, or its Counsel shall, notify the Warrant Agent in writing of any trading restrictions on the Common Shares acquired upon such exercise pursuant to applicable securities legislation or policy of any applicable regulatory body. Unless and until advised in writing by the Company or its Counsel that a specific legend and trading restrictions apply to the Common Shares, the Warrant Agent shall be entitled to assume that no specific legend is required and that there are no trading restrictions on the Common Shares.

#### 4.3 Subscription for Less than Entitlement

The holder of any Warrant Certificate may subscribe for and purchase a whole number of Common Shares that is less than the number that the holder is entitled to purchase pursuant to the surrendered Warrant Certificate. In such event, the holder thereof shall be entitled to receive, without charge except as aforesaid, a new Warrant Certificate in respect of the balance of the Common Shares which such holder was entitled to purchase pursuant to the surrendered Warrant Certificate and which was not then purchased, such new Warrant Certificate to contain the same legend as provided in subsection 2.9(2), if applicable.

#### 4.4 No Fractional Common Shares

Notwithstanding anything to the contrary in this Indenture, the Company shall not be required to issue fractional Common Shares in satisfaction of its obligations hereunder. If any fractional interest in a Common Share would, except for the provisions of this Section 4.4, be deliverable upon the exercise of a Warrant, the Company shall in lieu of delivering the fractional Common Shares therefor satisfy the right to receive such fractional interest by payment to the holder of such Warrant of an amount in funds equal (computed in the case of a fraction of a cent to the next lower cent) to the value of the right to acquire such fractional interest on the basis of the Current Market Price at the Exercise Date. The minimum amount for payment pursuant to this Section shall be \$1.00.

### 4.5 Expiration of Warrant Certificates

After the Time of Expiry, all rights under any Warrant or this Indenture in respect of which the right of subscription and purchase herein and therein provided for shall not theretofore have been exercised shall wholly cease and terminate and such Warrant shall be void and of no effect.

#### 4.6 Cancellation of Surrendered Warrants

All Warrant Certificates surrendered to the Warrant Agent pursuant to the provisions of this Indenture shall be cancelled by the Warrant Agent and the Warrant Agent shall record the cancellation of such Warrant Certificates on the register of holders maintained by the Warrant Agent pursuant to subsection 3.2(1). The Warrant Agent shall, if requested in writing by the Company, furnish or cause to be furnished to the Company a certificate identifying the Warrant Certificates so cancelled and the number of Common Shares which could have been purchased pursuant to each cancelled Warrant Certificate. All Warrants represented by Warrant Certificates that have been duly cancelled shall be without further force or effect whatsoever.

### 4.7 Accounting and Recording

- (1) The Warrant Agent shall promptly account to the Company with respect to Warrants exercised and forward to the Company (or into an account or accounts of the Company with the bank or trust company designated by the Company for that purpose) all monies received on the purchase of Common Shares through the exercise of Warrants. All such monies, and any securities or other instruments from time to time received by the Warrant Agent, shall be received in trust for, and shall be segregated and kept apart by the Warrant Agent in trust for, the Company.
- (2) The Warrant Agent shall record the particulars of the Warrant Certificates exercised which shall include the name or names and addresses of the Persons who become holders of Common Shares on exercise and the Exercise Date and Warrant Certificate number.

## 4.8 Prohibition on Exercise by U.S. Persons; Exception

- (1) Warrants may not be exercised by or on behalf of, or for the account or benefit of, any U.S. Person or any person in the United States unless an exemption is available from the registration requirements of the U.S. Securities Act and applicable state securities laws and the holder of the Warrants has furnished an opinion of counsel of recognized standing in form and substance satisfactory to the Company to such effect; provided that an Accredited Investor that purchased the Warrants in the United States will not be required to deliver an opinion of counsel in connection with the exercise of Warrants, provided it provides the certification required in subsection 4.8(2)(b) below. The Company shall be entitled to rely upon the registered address of the Warrantholder set forth in such Warrantholder's Form of U.S. Subscription Agreement for U.S. Accredited Investors attached to the U.S. Placement Memorandum under the Offering for the purchase of Units in determining whether the address is in the United States or the Warrantholder is a U.S. Person.
- (2) Any holder which exercises any Warrants shall provide/certify substantially as follows, to the Company either:
  - (a) the holder: (a) at the time of exercise of the Warrants is not in the United States; (b) is not a U.S. Person and is not exercising the Warrants on behalf of a U.S. Person; and (c) has in all other aspects complied with the terms of an "offshore transaction" within the meaning of Regulation S under the U.S. Securities Act;
  - (b) the holder: (a) acquired the Warrants directly from the Company pursuant to an executed Form of U.S. Subscription Agreement for Accredited Investors attached to the U.S. Placement Memorandum under the Offering for the purchase of Units; (b) is exercising the Warrants solely for its own account or for the benefit of a U.S. Person or a person in the United States for whose account such holder acquired the Warrants directly from the Company and for whose account such holder exercises sole investment discretion; and (c) was, and any beneficial purchaser for whose account such holder acquired the Warrants and is exercising the Warrants was, an Accredited Investor both on the date the Warrants were purchased from the Company and on Exercise Date of the Warrants; or

- 23 -
- (c) a written opinion of counsel of recognized standing in form and substance satisfactory to the Company to the effect that an exemption from the registration requirements of the U.S. Securities Act and applicable state securities laws is available for the issuance of the Common Shares issuable on exercise of the Warrants.
- (3) No certificates representing Common Shares will be registered or delivered to an address in the United States unless the holder of the Warrant complies with the requirements of paragraphs (b) or (c) of subsection 4.8(2).
- (4) If a Common Share certificate issued with respect to an exercise of Warrants is tendered for transfer and bears the legend set forth in subsection 2.9(2) hereof and the holder thereof has not obtained the prior written consent of the Company, the Warrant Agent or the transfer agent, as the case may be, shall not register such transfer unless the holder complies with the requirements of the said subsection 2.9(2).

## ARTICLE V

## ADJUSTMENT OF SUBSCRIPTION RIGHTS AND EXERCISE PRICE

### 5.1 Adjustment of Exercise Price and Number of Common Shares Purchasable Upon Exercise

Subject to Section 5.2, the Exercise Price and the number of Common Shares purchasable upon exercise of Warrants shall be subject to adjustment from time to time in the events and in the manner provided as follows:

- (a) <u>Common Share Reorganization</u>. If during the Exercise Period the Company shall:
  - (i) issue Common Shares or securities exchangeable for or convertible into Common Shares to holders of all or substantially all of its then
    outstanding Common Shares by way of stock dividend or other distribution (other than as a Dividend Paid in the Ordinary Course or a
    distribution of Common Shares upon exercise of the Warrants or pursuant to the exercise of directors, officers or employee stock options
    granted under stock option plans of the Company), or
    - (ii) subdivide, redivide or change its outstanding Common Shares into a greater number of Common Shares, or

(iii) consolidate, reduce or combine its outstanding Common Shares into a lesser number of Common Shares,

(any of such events in these paragraphs (i), (ii) and (iii) being a "**Common Share Reorganization**"), then the Exercise Price shall be adjusted as of the effective date or record date, as the case may be, at which the holders of Common Shares are determined for the purpose of the Common Share Reorganization by multiplying the Exercise Price in effect immediately prior to such effective date or record date by a fraction, the numerator of which shall be the number of Common Shares outstanding on such effective date or record date before giving effect to such Common Share Reorganization and the denominator of which shall be the number of Common Shares outstanding as of the effective date or record date, as the case may be, after giving effect to such Common Share Reorganization (including, in the case where securities exchangeable for or convertible into Common Shares on such record date or effective date, as the case may be, after giving effect to such Common Share Reorganization (including, in the case where securities been fully exchanged for or converted into Common Shares on such record date or effective date, as the case may be). From and after any adjustment of the Exercise Price pursuant to this subsection 5.1(a), the number of Common Shares purchasable pursuant to this Warrant Certificate shall be adjusted contemporaneously with the adjustment of the Exercise Price by multiplying the number of Common Shares then otherwise purchasable on the exercise thereof by a fraction, the numerator of which shall be the Exercise Price in effect immediately prior to the adjustment and the denominator of which shall be the Exercise Price in effect immediately prior to the adjustment and the denominator of which shall be the Exercise Price in effect immediately prior to the adjustment and the denominator of which shall be the Exercise Price in effect immediately prior to the adjustment and the denominator of which shall be the Exercise Price in effect immediately prior to the adjustment and the denominator of which shall

- (b) <u>Rights Offering</u>. If and whenever during the Exercise Period, the Company shall fix a record date for the issue of rights, options or warrants to all or substantially all of the holders of Common Shares under which such holders are entitled, during a period expiring not more than forty-five (45) days after the record date for such issue ("Rights Period"), to subscribe for or purchase Common Shares or securities exchangeable for or convertible into Common Shares at a price per share to the holder (or having a conversion price or exchange price per Share) of less than 95% of the Current Market Price for the Common Shares on such record date (any of such events being called a "Rights Offering"), then the Exercise Price shall be adjusted effective immediately after the end of the Rights Period to a price determined by multiplying the Exercise Price in effect immediately prior to the end of the Rights Period to a price determined by multiplying the Exercise Price in effect immediately prior to the end of the Rights Period to a price determined by multiplying the Exercise Price in effect immediately prior to the end of the Rights Period to a price determined by multiplying the Exercise Price in effect immediately prior to the end of the Rights Period by a fraction:
  - (i) the numerator of which shall be the aggregate of:
    - (1) the number of Common Shares outstanding as of the record date for the Rights Offering, and

- (2) a number determined by dividing either
- (a) where the event giving rise to the application of this subsection 5.1(b) was the issue of rights, options or warrants to the holders of Common Shares under which such holders are entitled to subscribe for or purchase additional Common Shares, the product of the number of Common Shares issued or subscribed for during the Rights Period and the price at which such Common Shares are offered,

or, as the case may be,

(b) where the event giving rise to the application of this subsection 5.1(b) was the issue of rights, options or warrants to the holders of Common Shares under which such holders are entitled to subscribe for or purchase securities exchangeable for or convertible into shares, the product of the exchange or conversion price per share of such securities offered and the number of Common Shares for or into which the securities so offered pursuant to the Rights Offering have been exchanged or converted during the Rights Period,

by the Current Market Price of the Common Shares as of the record date for the Rights Offering; and

(ii) the denominator of which shall be the number of Common Shares outstanding after giving effect to the Rights Offering and including the number of Common Shares actually issued or subscribed for during the Rights Period upon exercise of the rights, warrants or options under the Rights Offering or upon the exercise of the exchange or conversion rights contained in such exchangeable or convertible securities under the Rights Offering.

If the holder has exercised any of the Warrants during the period beginning immediately after the record date for a Rights Offering and ending on the last day of the Rights Period, the holder shall, in addition to the Common Shares to which the holder is otherwise entitled upon such exercise in accordance with Article II hereof, be entitled to that number of additional Common Shares equal to the result obtained when the difference, if any, resulting from the subtraction of the Exercise Price as adjusted for such Rights Offering pursuant to this subsection 5.1(b) from the Exercise Price in effect immediately prior to the end of such Rights Offering is multiplied by the number of Common Shares purchased upon exercise of the Warrants held by such holder during such period, and the resulting product is divided by the Exercise Price as adjusted for such Rights Offering pursuant to this subsection 5.1(b); provided that the provisions of subsection 5.4(1) shall be applicable to any fractional interest in a Common Share shall be deemed to have been issued to the holder immediately following the end of the Rights Period and a certificate for such additional Common Shares shall be delivered to such holder within three (3) Business Days following the end of the Rights Period.

If at any time after the date hereof and prior to the Time of Expiry, any of the events set out in subsection 5.1(b) shall occur and the holder has not exercised any of the Warrants during the Rights Period, and the occurrence of such event results in an adjustment of the Exercise Price pursuant to provisions of this Section 5.1, then the number of Common Shares purchasable pursuant to this Warrant Certificate shall be adjusted contemporaneously with the adjustment of the Exercise Price by multiplying the number of Common Shares then otherwise purchasable on the exercise thereof by a fraction, the numerator of which shall be the Exercise Price in effect immediately prior to the adjustment and the denominator of which shall be the Exercise Price resulting from such adjustment.

- (c) <u>Special Distribution</u>. If and whenever during the Exercise Period, the Company shall issue or distribute to all or to substantially all the holders of the Common Shares:
  - securities of the Company including shares, rights, options or warrants to acquire shares of any class or securities exchangeable for or convertible into or exchangeable into any such shares or cash, property or assets and including evidences of its indebtedness, or
  - (ii) any cash, property or other assets,

and if such issuance or distribution does not constitute Dividends Paid in the Ordinary Course, a Common Share Reorganization or a Rights Offering (any of such non-excluded events being herein called a "**Special Distribution**"), the Exercise Price will be adjusted immediately after such record date so that it will equal the rate determined by multiplying the Exercise Price in effect on such record date by a fraction, of which the numerator shall be the total number of Common Shares outstanding on such record date multiplied by the Current Market Price on the earlier of such record date and the date on which the Company announces its intention to make such distribution, less the aggregate fair market value (as determined by the directors, acting reasonably and in good faith, at the time such distributed, and of which the denominator shall be the total number of Common Shares outstanding on such record date which the date multiplied by such Current Market Price. If at any time after the date hereof and prior to the Time of Expiry, any of the events set out in subsection 5.1(c) shall occur and the occurrence of such event results in an adjustment of the Exercise Price by multiplying the number of Common Shares purchasable pursuant to this Warrant Certificate shall be adjusted contemporaneously with the adjustment of the Exercise Price by multiplying the number of Common Shares then otherwise purchasable on the exercise thereof by a fraction, the numerator of which shall be the Exercise Price in effect immediately prior to the adjustment and the denominator of which shall be the Exercise Price in effect immediately prior to the adjustment and the denominator of which shall be the Exercise Price resulting from such adjustment.

(d) Capital Reorganization. If and whenever during the Exercise Period there shall be a reclassification of Common Shares at any time outstanding or a change or exchange of the Common Shares into other shares or into other securities (other than a Common Share Reorganization), or a consolidation, amalgamation, arrangement or merger of the Company with or into any other corporation or other entity (other than a consolidation, amalgamation, arrangement or merger which does not result in any reclassification of the outstanding Common Shares or a change or exchange of the Common Shares into other securities), or a transfer of the undertaking or assets of the Company as an entirety or substantially as an entirety to another corporation or other entity (any of such events being herein called a "Capital Reorganization"), the holder, where he has not exercised the right of subscription and purchase under this Warrant Certificate prior to the effective date or record date, as the case may be, of such Capital Reorganization, shall be entitled to receive, and shall accept upon the exercise of such right for the same aggregate consideration, in lieu of the number of Common Shares to which such holder was theretofore entitled upon such exercise, the aggregate number of shares, other securities or other property which such holder would have been entitled to receive as a result of such Capital Reorganization if, on the effective date thereof, he had been the registered holder of the number of Common Shares to which such holder was theretofore entitled to subscribe for and purchase; provided however, that no such Capital Reorganization shall be carried into effect unless all necessary steps shall have been taken to so entitle the holder. If determined appropriate by the board of directors of the Company, acting reasonably and in good faith, and subject to the prior written approval of the principal Canadian stock exchange or over-the-counter market on which the Common Shares are then listed or quoted for trading, appropriate adjustments shall be made as a result of any such Capital Reorganization in the application of the provisions of this Indenture with respect the rights and interest thereafter of the Warrantholder to the end that the provisions of this Indenture shall thereafter correspondingly be made applicable as nearly as may reasonably be possible in relation to any shares or other securities or property thereafter deliverable upon the exercise of the Warrants.

(e) If and whenever at any time after the date hereof and prior to the Time of Expiry, the Company takes any action affecting its Common Shares to which the foregoing provisions of this Section 5.1, in the opinion of the board of directors of the Company, acting reasonably and in good faith, are not strictly applicable, or if strictly applicable would not fairly adjust the rights of the Holder against dilution in accordance with the intent and purposes thereof, or would otherwise materially affect the rights of the holder hereunder, then the Company shall execute and deliver to the holder an amendment hereto providing for an adjustment in the application of such provisions so as to adjust such rights as aforesaid in such a manner as the board of directors of the Company to so provide for any adjustment on or prior to the effective date of any action or occurrence giving rise to such state of facts will be conclusive evidence that the board of directors has determined that it is equitable to make no adjustment in the action of such provisions has determined that it is equitable to make no adjustment in the company of the state.

#### 5.2 Rules Regarding Calculation of Adjustment of Exercise Price and Number of Common Shares Purchasable Upon Exercise

For the purposes of Section 5.1:

- (1) The adjustments provided for in Section 5.1 are cumulative, and shall, in the case of adjustments to the Exercise Price be computed to the nearest one-tenth of one cent and shall be made successively whenever an event referred to therein shall occur, subject to the following paragraphs of this Section 5.2.
- (2) No adjustment in the Exercise Price shall be required unless such adjustment would result in a change of at least 1% in the prevailing Exercise Price and no adjustment shall be made in the number of Common Shares purchasable upon exercise of the Warrants unless it would result in a change of at least one one-hundredth of a Common Share; provided, however, that any adjustments which, except for the provisions of this Section 5.2(2) would otherwise have been required to be made, shall be carried forward and taken into account in any subsequent adjustment.
- (3) No adjustment in the Exercise Price or in the number of Common Shares purchasable upon exercise of Warrants shall be made in respect of any event described in Section 5.1, other than the events referred to in subsection 5.1(a)(ii) and 5.1(a)(iii), if the holder is entitled to participate in such event on the same terms, *mutatis mutandis*, as if it had exercised its Warrants prior to or on the effective date or record date of such event. The terms of the participation of the holder in such event shall be subject to any necessary approval of the principal Canadian stock exchange or over-the-counter market on which the Common Shares are then listed or quoted for trading.

- (4) No adjustment in the Exercise Price shall be made pursuant to Section 5.1 in respect of the issue from time to time:
  - (a) of Common Shares purchasable on exercise of the Warrants governed by this Warrant Indenture;
  - (b) of a Dividend Paid in the Ordinary Course of Common Shares to holders of Common Shares who exercise an option or election to receive substantially equivalent dividends in Common Shares in lieu of receiving a cash dividend pursuant to a dividend reinvestment plan or similar plan adopted by the Company in accordance with the requirements of the principal Canadian stock exchange or over-the-counter market on which the Common Shares are then listed or quoted for trading and applicable securities laws;
  - (c) of Common Shares pursuant to any stock option plan, stock purchase plan or benefit plan in force at the date hereof for directors, officers, employees, advisers or consultants of the Company, as such option or plan is amended or superseded from time to time in accordance with the requirements of the principal Canadian stock exchange or over-the-counter market on which the Common Shares are then listed or quoted for trading and applicable securities laws, and such other stock option plan, stock purchase plan or benefit plan as may be adopted by the Company in accordance with the requirements of the principal Canadian stock exchange or over-the-counter market on which the Common Shares are then listed or quoted for trading and applicable securities laws;
  - (d) of Common Shares as payment of interest on any outstanding notes;
  - (e) of the issuance of securities in connection with strategic license agreements and other partnering arrangements of the Company or any subsidiary thereof; or
  - (f) of Common Shares as full or partial consideration in connection with a strategic merger, consolidation or purchase of substantially all of the securities or assets of a corporation or other entity;

and any such issue shall be deemed not to be a Common Share Reorganization or Capital Reorganization.

(5) If a dispute shall at any time arise with respect to adjustments provided for in Section 5.1, such dispute shall, absent manifest error, be conclusively determined by the Company's Auditors, or if they are unable or unwilling to act, by such other firm of independent chartered accountants as may be selected by action by the Directors and any such determination, absent manifest error, shall be binding upon the Company, the Warrant Agent and the Warrantholders. Notwithstanding the foregoing, such determination shall be subject to compliance with all regulatory requirements (including the rules of any stock exchange or over-the-counter market on which the Common Shares are then listed or quoted for trading). Such auditors or accountants shall be provided access to all necessary records of the Company. In the event that any such determination is made, the Company shall deliver a certificate to the Warrant Agent and a notice to the Warrantholders in the manner contemplated in Section 3.6 describing such determination.

- (6) If the Company shall set a record date to determine the holders of the Common Shares for the purpose of entitling them to receive any dividend or distribution or any subscription or purchase rights and shall, thereafter and before the distribution to such shareholders of any such dividend, distribution or purchase rights, legally abandon its plan to pay or deliver such dividend, distribution or subscription or purchase rights, then no adjustment in the Exercise Price or the number of Common Shares purchasable upon exercise of any Warrant shall be required by reason of the setting of such record date.
- (7) In the absence of a resolution of the board of directors of the Company fixing a record date for any dividend or distribution referred to in subsection 5.1(a)(i) or any Rights Offering or Special Distribution, the Company shall be deemed to have fixed as the record date therefor the date on which such dividend or distribution is effected.
- (8) As a condition precedent to the taking of any action which would require any adjustment in any of the subscription rights pursuant to this Warrant Certificate, including the Exercise Price and the number or class of shares or other securities which are to be received upon the exercise thereof, the Company shall take any corporate action which may, in the opinion of Counsel, be necessary in order that the Company have unissued and reserved in its authorized capital and may validly and legally issue as fully paid and non-assessable all the shares or other securities which the holder of such Warrant Certificate is entitled to receive on the full exercise thereof in accordance with the provisions hereof.
- (9) In case the Company, after the date hereof, shall take any action affecting any Common Shares, other than action described in Section 5.1, which in the opinion of the Directors acting reasonably and in good faith would materially affect the rights of Warrantholders, the Exercise Price and the number or class of shares or other securities which are to be received upon the exercise thereof shall be adjusted in such manner, if any, and at such time, as the Directors, in their sole discretion acting in good faith, may determine to be equitable in the circumstances. Such adjustment to be subject to TSX approval in the event that the Warrants are listed for trading on the TSX. Failure of the taking of action by the Directors so as to provide for an adjustment in the Exercise Price and the number or class of shares or other securities which are to be received upon the exercise thereof prior to the effective date of any action by the Company affecting the Common Shares shall be conclusive evidence that the directors have determined that it is equitable to make no adjustment in the circumstances.

- (10) The Warrant Agent shall be entitled to act and rely on any adjustment calculations by the Company or the Company's Auditors.
- (11) On the happening of each and every such event set out in Section 5.1, the applicable provisions of the Warrant Certificate, including the Exercise Price, shall, *ipso facto*, be deemed to be amended accordingly and the Company shall take all necessary action so as to comply with such provisions as so amended.

#### 5.3 Postponement of Subscription

In any case in which the application of Section 5.1 shall require that an adjustment shall be effective immediately after a record date for an event referred to herein, the Company may defer, until the occurrence of such an event:

- (a) issuing to the Warrantholder of any Warrant exercised after such record date and before the occurrence of such event, the additional Common Shares issuable upon such exercise by reason of the adjustment required by such event, and
- (b) delivering to such Warrantholder any distributions declared with respect to such additional Common Shares after such Exercise Date and before such event;

provided, however, that the Company shall deliver or cause to be delivered to such Warrantholder, an appropriate instrument evidencing such Warrantholder's right, upon the occurrence of the event requiring the adjustment, to an adjustment in the Exercise Price and/or the number of Common Shares purchasable on the exercise of any Warrant and to such distributions declared with respect to any additional Common Shares issuable on the exercise of any Warrant.

#### 5.4 Notice of Adjustment of Exercise Price and Number of Common Shares Purchasable Upon Exercise

(1) At least ten (10) Business Days prior to the effective date or record date, as the case may be, of any event which requires or might require adjustment in any of the subscription rights pursuant to this Warrant Certificate, including the Exercise Price and the number of Common Shares which are purchasable upon the exercise thereof, the Company shall be required to (a) file with the Warrant Agent a certificate of the Company specifying the particulars of such event (including the record date or the effective date for such event) and, if determinable, the required adjustment and the computation of such adjustment; and (b) give notice to the Warrantholders of the particulars of such event (including the record date or the effective date for such event) and, if determinable, the required adjustment. Notice to the Warrantholders shall be given in the manner specified in Section 3.6.

- (2) In case any adjustment for which such notice has been given is not then determinable, the Company shall promptly after such adjustment is determinable (a) file with the Warrant Agent a computation of such adjustment; and (b) give notice to the Warrantholders of the adjustment. Notice to the Warrantholders shall be given in the manner specified in Section 3.6.
- (3) The Warrant Agent may, absent manifest error, for all purposes of the adjustment act and rely upon the certificate of the Company's Auditors submitted to it pursuant to subsection 5.4(1) and on the accuracy of such certificate, calculations and formulas contained therein.

# ARTICLE VI PURCHASES BY THE COMPANY

#### 6.1 Purchases of Warrants for Cancellation

The Company may, at any time and from time to time, purchase Warrants by invitation for tender, by private contract or otherwise (which shall include a purchase through an investment dealer or firm holding membership on a Canadian stock exchange) on such terms as the Company may determine. All Warrants purchased pursuant to the provisions of this Section 6.1 shall be forthwith delivered to, cancelled and destroyed by the Warrant Agent and shall not be reissued.

#### 6.2 Optional Purchases by the Company

Subject to applicable law, the Company may from time to time purchase on any stock exchange, in the open market, by private agreement or otherwise any of the Warrants. Any such purchase shall be made at the lowest price or prices at which, in the opinion of the Directors, such Warrants are then obtainable, plus reasonable costs of purchase, and may be made in such manner, from such Persons, and on such other terms as the Company in its sole discretion may determine. The Warrant Certificates representing the Warrants purchased pursuant to this Section 6.2 shall forthwith be delivered to and cancelled by the Warrant Agent.

## ARTICLE VII COVENANTS OF THE COMPANY

#### 7.1 Covenants of the Company

The Company covenants with the Warrant Agent for the benefit of the Warrantholders and the Warrant Agent that so long as any Warrants remain outstanding and may be exercised:

- the Company will at all times maintain its existence and will carry on and conduct its business in a prudent manner in accordance with industry standards and good business practice, and will keep or cause to be kept proper books of account in accordance with applicable law;
- (b) the Company will reserve and keep available a sufficient number of Common Shares for issuance upon the exercise of Warrants issued by the Company;

- (c) the Company will cause the Common Shares from time to time subscribed for pursuant to the Warrants issued by the Company hereunder, in the manner herein provided, to be duly issued in accordance with the Warrants and the terms hereof;
- (d) the Company will cause the certificates representing the Common Shares from time to time to be acquired, pursuant to the Warrants in the manner herein provided, to be duly issued and delivered in accordance with the Warrants and the terms hereof;
- (e) the Company shall make all requisite filings under the Securities Act (Ontario), the Securities Act (British Columbia) or the Securities Act (Alberta) and the regulations made thereunder including those necessary to remain a reporting issuer not in default of any requirement of such acts and regulations;
- (f) the Company shall use all reasonable efforts to maintain the listing of the Common Shares on the TSX (or such other recognized stock exchange as may be agreed upon by the Company and the Agent) and to have the Common Shares issued pursuant to the exercise of the Warrants listed and posted for trading on the TSX (or such other recognized stock exchange as may be agreed upon by the Company and the Agent) as expeditiously as possible;
- (g) all Common Shares that shall be issued by the Company upon exercise of the rights provided for herein shall be issued as fully paid and non-assessable;
- (h) the Company will perform and carry out all of the acts or things to be done by it as provided in this Indenture;
- (i) the Company will promptly advise the Warrant Agent and the Warrantholders in writing of any default under the terms of this Indenture; and
- (j) the Company confirms that as at the date of execution of this Indenture it does not have a class of securities registered pursuant to Section 12 of the U.S. Securities and Exchange Act of 1934, as amended or have a reporting obligation pursuant to Section 15(d) of the Act. The Company covenants that in the event that (i) any class of its securities shall become registered pursuant to Section 12 of the U.S. Securities and Exchange Act or the Company shall incur a reporting obligation pursuant to Section 15(d) of the U.S. Securities and Exchange Act or the Company shall incur a reporting obligation pursuant to Section 15(d) of the U.S. Securities and Exchange Act, or (ii) any such registration or reporting obligation shall be terminated by the Company in accordance with the U.S. Securities and Exchange Act, the Company shall promptly deliver to the Warrant Agent an officers' certificate notifying the Warrant Agent of such registration or termination and such other information as the Warrant Agent may require at the time. The Company acknowledges that the Warrant Agent is relying upon the foregoing covenants in order to meet certain SEC obligations with respect to those clients who are filing with the SEC.

#### 7.2 Warrant Agent's Remuneration and Expenses

The Company covenants that it will pay to the Warrant Agent from time to time reasonable remuneration for its services hereunder and will pay or reimburse the Warrant Agent upon its request for all reasonable expenses, disbursements and advances incurred or made by the Warrant Agent in the administration or execution of the duties hereby created, except any such expense, disbursement or advance as may arise out of or result from the gross negligence, wilful misconduct or fraud of the Warrant Agent. Any amount owing hereunder and remaining unpaid 30 days from the invoice date will bear interest at the then current rate charged by the Warrant Agent against unpaid invoices and shall be payable upon demand. This Section 7.2 shall survive the termination of this Indenture and the removal or resignation of the Warrant Agent.

#### 7.3 Performance of Covenants by Warrant Agent

Subject to Section 11.6, if the Company shall fail to perform any of its covenants contained in this Warrant Indenture and the Company has not rectified such failure within twenty-five (25) Business Days after either giving notice of such default pursuant to subsection 7.1(i) or receiving written notice from the Warrant Agent of such failure, the Warrant Agent may notify the Warrantholders in the manner provided in Section 3.6 of such failure on the part of the Company or, subject to Section 11.1, may itself perform any of the covenants capable of being performed by it, but shall be under no obligation to perform such covenants or to notify the Warrantholders of such performance by it. All reasonable sums expended or advanced by the Warrant Agent in so doing shall be repayable as provided in Section 7.2. No such performance, expenditure or advance by the Warrant Agent shall relieve the Company of any default hereunder or of its continuing obligations under the covenants herein contained.

#### 7.4 Securities Filings

- (1) If, in the opinion of Counsel, any filing is required to be made with any governmental or other authority in Canada (including the securities regulatory authorities or any exchange or quotation system upon which any securities of the Company are listed or quoted for trading), or any other step is required before any Common Shares issuable upon the exercise of Warrants by a Warrantholder may properly and legally be issued in Canada, the Company covenants that it will take such action so required at its own expense.
- (2) The Company will give written notice of the issue of Common Shares pursuant to the exercise of Warrants, in such detail as may be required, to each securities administrator in each jurisdiction in which there is legislation requiring the giving of such notice and to the TSX.

#### 7.5 Certificates of No Default

At any time if requested by the Warrant Agent, the Company shall deliver to the Warrant Agent an officers' certificate stating that the Company has complied to the best of its knowledge, in all material respects, with all covenants, conditions or other requirements contained in this Indenture. In the event that the Company has not complied, in all material respects, with all the covenants and conditions contained herein, it will advise the Warrant Agent and the holders of such default as soon as reasonably practicable, specifying the covenant, condition or other requirement which has not been complied with and giving particulars of such non-compliance.

# ARTICLE VIII ENFORCEMENT

#### 8.1 Suits by Warrantholders

- (1) <u>Warrantholders May Not Sue</u>. Except to the extent that the rights of an individual Warrantholder or group of Warrantholders would be prejudiced thereby, no Warrantholder has the right to institute any action or proceeding or to exercise any other remedy authorized hereunder for the purpose of enforcing any right on behalf of the Warrantholders as a whole or for the execution of any trust or power hereunder or for the appointment of a liquidator or receiver or receiver and manager or for a receiving order under the *Bankruptcy and Insolvency Act* (Canada) or to have the Company wound up or to file or prove a claim in any liquidation or bankruptcy proceedings, unless the Warrant Agent has received a Warrantholders' Request directing it to take the requested action and has been provided with sufficient funds or other security and/or such indemnity satisfactory to the Warrant Agent in respect of the costs, expenses and liabilities that may be incurred by it in so proceeding on behalf of all Warrantholders will be entitled to take any of the proceedings that the Warrant Agent has failed to act, but not otherwise, any Warrantholder acting on behalf of all Warrantholders will be entitled to take any of the proceedings that the Warrant Agent has any right in any manner whatsoever to effect, disturb or prejudice the rights hereby created by its action or to enforce any right hereunder or under any Warrant, except subject to the conditions and in the manner herein provided. Any money received as a result of a proceeding taken by any Warrantholder on behalf of all the Warrantholders hereunder must be forthwith paid to the Warrant Agent.
- (2) <u>Warrant Agent not Required to Possess Warrants</u>. All rights of action under this Indenture may be enforced by the Warrant Agent without the possession of any of the Warrants or the production thereof on any trial or other proceedings relative thereto.
- Warrant Agent May Institute Proceedings. The Warrant Agent shall be entitled and empowered, either in its own name or as Warrant Agent of an express (3) trust, or as attorney-in-fact for the Warrantholders, or in any one or more of such capacities, to file such proof of debt, amendment of proof of debt, claim, petition or other document as may be necessary or advisable in order to have the claim of the Warrant Agent and the Warrantholders allowed in any insolvency, bankruptcy, liquidation or other judicial proceedings relative to the Company or its creditors or relative to or affecting its property. The Warrant Agent is hereby irrevocably appointed (and the successive respective Warrantholders by taking and holding the same shall be conclusively deemed to have so appointed the Warrant Agent) the true and lawful attorney-in-fact of the respective Warrantholders with authority to make and file in the respective names of the Warrantholders or on behalf of the Warrantholders as a class, subject to deduction from any such claims of the amounts of any claims filed by any of the Warrantholders themselves if and to the extent permitted hereunder, any proof of debt, amendment of proof of debt, claim, petition or other document in any such proceedings and to receive payment of any sums becoming distributable on account thereof, and to execute any such other papers and documents and to do and perform any and all such acts and things for and on behalf of the Warrantholders, as may be necessary or advisable in the opinion of the Warrant Agent acting and relying on the advice of Counsel, in order to have the respective claims of the Warrant Agent and of the Warrantholders against the Company or its property allowed in any such proceeding, and to receive payment of or on account of such claims; provided, however, that nothing contained in this Indenture shall be deemed to give the Warrant Agent, unless so authorized by Extraordinary Resolution, any right to accept or consent to any plan of reorganization or otherwise by action of any character in such proceeding to waive or change in any way any right of any Warrantholder. The Warrant Agent shall also have the power, but not the obligation, at any time and from time to time to institute and to maintain such suits and proceedings as it may be advised shall be necessary or advisable to preserve and protect its interests and the interests of the Warrantholders. Any such suit or proceeding instituted by the Warrant Agent may be brought in the name of the Warrant Agent as Warrant Agent of an express trust, and any recovery of judgment shall be for the rateable benefit of the Warrantholders subject to the provisions of this Indenture. In any proceeding brought by the Warrant Agent (and also any proceeding in which a declaratory judgment of a court may be sought as to the interpretation or construction of any provision of this Indenture, to which the Warrant Agent shall be a party), the Warrant Agent shall be held to represent all the Warrantholders, and it shall not be necessary to make any Warrantholders parties to any such proceeding.

(4) Subject to the provisions of this Section and otherwise in this Indenture, all or any of the rights conferred upon a Warrantholder by the terms of a Warrant may be enforced by such Warrantholder by appropriate legal proceedings without prejudice to the right which is hereby conferred upon the Warrant Agent to proceed in its own name to enforce each and all of the provisions herein contained for the benefit of all of the Warrantholders from time to time.

# 8.2 Limitation of Liability

The obligations hereunder are not personally binding upon nor shall resort hereunder be had to, the private property of any of the past, present or future Directors or Shareholders of the Company or of any successor corporation or of any of the past, present or future officers, employees or agents of the Company or of any successor corporation shall be bound in respect hereof.

# ARTICLE IX MEETINGS OF WARRANTHOLDERS

#### 9.1 Right to Convene Meetings

The Warrant Agent may at any time and from time to time, and shall on receipt of a written request of the Company or of a Warrantholders' Request and upon receiving sufficient funds and being indemnified to its reasonable satisfaction by the Company or by the Warrantholders signing such Warrantholders' Request against the cost of which may be incurred in connection with the calling and holding of such meeting, convene a meeting of the Warrantholders' Request, failing to so convene a meeting within fifteen (15) Business Days after receipt of such written request of the Company or Warrantholders' Request, funds and indemnity given as aforesaid, the Company or such Warrantholders, as the case may be, may convene such meeting. Every such meeting shall be held in the City of Toronto or at such other place as may be approved or determined by the Warrant Agent unless the meeting was convened by the Company or by Warrantholders convening the meeting, as the case may be, may be held at such place as may be determined by the Company or by the Warrantholders convening the meeting, as the case may be, may be held at such place as may be determined by the Company or by the Warrantholders convening the meeting, as the case may be, may be held at such place as may be determined by the Company or by the Warrantholders convening the meeting, as the case may be.

## 9.2 Notice

At least twenty-one (21) Business Days prior notice of any meeting of Warrantholders shall be given to the Warrantholders in the manner provided for in Section 3.6 and a copy of such notice shall be sent by mail to the Warrant Agent (unless the meeting has been called by the Warrant Agent) and to the Company (unless the meeting has been called by the Company). Such notice shall state the time when and the place where the meeting is to be held, shall state briefly the general nature of the business to be transacted thereat and shall contain such information as is reasonably necessary to enable the Warrantholders to make a reasoned decision on the matter, but it shall not be necessary for any such notice to set out the terms of any resolution to be proposed nor any of the provisions of this Article IX. The notice convening any such meeting may be signed by an appropriate officer of the Warrant Agent or by the Company or by the Warrantholder or Warrantholders convening the meeting.

## 9.3 Chairman

An individual (who need not be a Warrantholder) nominated in writing by the Warrant Agent shall be chairman of the meeting and if no individual is so nominated, or if the individual so nominated is not present within fifteen minutes from the time fixed for the holding of the meeting, or if such Person is unable or unwilling to act as chairman, the Warrantholders present in person or by proxy shall choose some individual present to be chairman.

#### 9.4 Quorum

Subject to the provisions of Section 9.11, at any meeting of the Warrantholders a quorum shall consist of Warrantholders present in person or by proxy and entitled to purchase at least 25% of the aggregate number of Common Shares which could be purchased pursuant to all the then outstanding Warrants, provided that at least two Persons entitled to vote thereat are personally present (except in the case where there is only one Warrantholder). If a quorum of the Warrantholders shall not be present within thirty minutes from the time fixed for holding any meeting, the meeting, if summoned by the Warrantholders or on a Warrantholders' Request, shall be dissolved; but in any other case the meeting shall be adjourned to the same day in the next week (unless such day is not a Business Day in which case it shall be adjourned to the next following Business Day) at the same time and place and subject to Section 9.11 no notice of the adjournment need be given. Any business shall be transacted at any meeting unless a quorum is present at the commencement of business. At the adjourned meeting the Warrantholders present in person or by proxy shall form a quorum and may transact the business for which the meeting was originally convened, notwithstanding that they may not be entitled to purchase at least 25% of the aggregate number of Common Shares which may be purchased pursuant to all then outstanding Warrants.

#### 9.5 Power to Adjourn

The chairman of any meeting at which a quorum of the Warrantholders is present may, with the consent of the meeting, adjourn any such meeting, and no notice of such adjournment need be given except such notice, if any, as the meeting may prescribe.

#### 9.6 Show of Hands

Every question submitted to a meeting shall be decided in the first place by a majority of the votes given on a show of hands except that votes on an Extraordinary Resolution shall be given in the manner hereinafter provided. At any such meeting, unless a poll is duly demanded as herein provided, a declaration by the chairman that a resolution has been carried or carried unanimously or by a particular majority or lost or not carried by a particular majority shall be conclusive evidence of the fact.

# 9.7 Poll and Voting

- (1) On every Extraordinary Resolution, and on any other question submitted to a meeting and after a vote by show of hands when demanded by the chairman or by one or more of the Warrantholders acting in Person or by proxy, a poll shall be taken in such manner as the chairman shall direct. Questions other than those required to be determined by Extraordinary Resolution shall be decided by a majority of votes cast on the poll.
- (2) On a show of hands, every Person who is present and entitled to vote, whether as a Warrantholder or as proxy for one or more absent Warrantholders, or both, shall have one vote. On a poll, each Warrantholder present in person or represented by a proxy duly appointed by instrument in writing shall be entitled to one vote in respect of each Common Share which he is entitled to purchase pursuant to the Warrant or Warrants then held or represented by him. A proxy need not be a Warrantholder. The chairman of any meeting shall be entitled, both on a show of hands and on a poll, to vote in respect of the Warrants, if any, held or represented by him.

# 9.8 Regulations (1) Subj

- Subject to the provisions of this Indenture, the Warrant Agent or the Company with the approval of the other party may from time to time make and from time to time vary such regulations as it shall think fit:
- (a) for the deposit of voting certificates and instruments appointing proxies at such place and time as the Warrant Agent, the Company or the Warrantholders convening the meeting, as the case may be, may in the notice convening the meeting direct;
- (b) for the deposit of voting certificates and instruments appointing proxies at some approved place or places other than the place at which the meeting is to be held and enabling particulars of such instruments appointing proxies to be mailed, delivered or sent by facsimile transmission before the meeting to the Company or to the Warrant Agent at the place where the same is to be held and for the voting of proxies so deposited as though the instruments themselves were produced at the meeting;
- (c) for the form of the voting certificates and instrument of proxy and the manner in which the form of proxy may be executed; and
- (d) generally for the calling of meetings of Warrantholders and the conduct of business thereat including setting a record date for Warrantholders entitled to receive notice of or to vote at such meeting.
- (2) Any regulations so made shall be binding and effective and the votes given in accordance therewith shall be valid and shall be counted. Save as such regulations may provide, or as may be expressly provided for herein the only Persons who shall be recognized at any meeting as a Warrantholder, or be entitled to vote or be present at the meeting in respect thereof (subject to Section 9.9) shall be Warrantholders or Persons holding voting certificates or proxies of Warrantholders.

## 9.9 Company, Warrant Agent and Warrantholders May be Represented

The Company and the Warrant Agent, by their respective directors, officers and employees, and the Counsel for the Company, for the Warrant Agent and for any Warrantholder may attend any meeting of the Warrantholders, but shall have no vote as such, except in their capacity as Warrantholders.

#### 9.10 Powers Exercisable by Extraordinary Resolution

In addition to all other powers conferred upon them by any other provisions of this Indenture or by law, the Warrantholders at a meeting shall have the power, exercisable from time to time by Extraordinary Resolution, subject to applicable law and any regulatory approval:

- (a) to agree to any modification, abrogation, alteration, compromise or arrangement of the rights of Warrantholders or (with the consent of the Warrant Agent, such consent not to be unreasonably withheld) the Warrant Agent in its capacity as Warrant Agent hereunder or on behalf of the Warrantholders against the Company whether such rights arise under this Indenture, the Warrant Certificate or otherwise, provided that following such action the rights of the Warrantholders or any individual Warrantholder shall not exceed the rights of the Warrantholders hereunder, or otherwise result in an increase of the obligations and liabilities of the Company hereunder;
- (b) to amend, alter or repeal any Extraordinary Resolution previously passed or sanctioned by the Warrantholders;
- (c) to direct or to authorize the Warrant Agent, subject to its prior indemnification pursuant to subsection 11.1(2), to enforce any of the covenants on the part of the Company contained in this Indenture or the Warrant Certificates or to enforce any of the rights of the Warrantholders in any manner specified in such Extraordinary Resolution or to refrain from enforcing any such covenant or right;
- (d) to waive, and to direct the Warrant Agent to waive, any default on the part of the Company in complying with any provisions of this Indenture or the Warrant Certificates either unconditionally or upon any conditions specified in such Extraordinary Resolution;
- (e) to restrain any Warrantholder from taking or instituting any suit, action or proceeding against the Company for the enforcement of any of the covenants on the part of the Company contained in this Indenture or the Warrant Certificates or to enforce any of the rights of the Warrantholders as set out in this Indenture;
- (f) to assent to a compromise or arrangement with a creditor or creditors or a class or classes of creditors, whether secured or otherwise, and with holders of any shares or other securities of the Company;
- (g) to direct any Warrantholder who, as such, has brought any suit, action or proceeding to stay or to discontinue or otherwise to deal with the same upon payment of the costs, charges and expenses reasonably and properly incurred by such Warrantholder in connection therewith; and
- (h) to remove the Warrant Agent and appoint a successor warrant agent in the manner specified in Section 11.7 hereof.

# Meaning of Extraordinary Resolution

- (1) The expression "Extraordinary Resolution" when used in this Indenture means, subject as hereinafter provided in this Section 9.11 and in Section 9.14, a resolution (i) passed at a meeting of the holders of Warrants duly convened for that purpose and held in accordance with the provisions of this Article IX at which there are holders of Warrants present in person or represented by proxy representing at least 25% of the aggregate number of all the then outstanding Warrants and passed by the affirmative vote of Warrantholders representing not less than 66 2/3% of the aggregate number of all the then outstanding Warrants represented at the meeting and voted on the poll upon such resolution; or (ii) adopted by an instrument in writing signed by the holders of Warrants representing not less than 66 2/3% percent of the aggregate number of all the then outstanding Warrants.
- (2) If, at any meeting called for the purpose of passing an Extraordinary Resolution, Warrantholders entitled to purchase at least 25% of the aggregate number of all the then outstanding Warrants are not present in person or by proxy within 30 minutes after the time appointed for the meeting then the meeting, if convened by Warrantholders or on a Warrantholders' Request, shall be dissolved; but in any other case it shall stand adjourned to such day, being not less than ten (10) Business Days later, and to such place and time as may be appointed by the chairman. Not less than three (3) days' prior notice shall be given of the time and place of such adjourned meeting in the manner provided for in Section 3.6. Such notice shall state that at the adjourned meeting the Warrantholders present in person or by proxy shall form a quorum but it shall not be necessary to set forth the purposes for which the meeting was originally called or any other particulars. At the adjourned meeting the Warrantholders present in person or by proxy shall form proposed at such adjourned meeting and passed by the requisite vote as provided in subsection 9.11(1) shall be an Extraordinary Resolution within the meaning of this Indenture notwithstanding that Warrantholders representing at least 25% of all the then outstanding Warrants are not present in person or by proxy at such adjourned meeting.
- (3) Votes on an Extraordinary Resolution shall always be given on a poll and no demand for a poll on an Extraordinary Resolution shall be necessary.

#### 9.12 Powers Cumulative

9.11

It is hereby declared and agreed that any one or more of the powers or any combination of the powers in this Indenture stated to be exercisable by the Warrantholders by Extraordinary Resolution or otherwise may be exercised from time to time and the exercise of any one or more of such powers or any combination of powers from time to time shall not be deemed to exhaust the right of the Warrantholders to exercise such power or powers or combination of powers then or thereafter from time to time.

#### 9.13 Minutes

Minutes of all resolutions and proceedings at every meeting of Warrantholders shall be made and duly entered in books to be provided from time to time for that purpose by the Company, and any such minutes as aforesaid, if signed by the chairman of the meeting at which such resolutions were passed or proceedings had, shall be prima facie evidence of the matters therein stated and, until the contrary is proved, every such meeting in respect of the proceedings of which minutes shall have been made shall be deemed to have been duly convened and held, and all resolutions passed or proceedings taken thereat shall be deemed to have been duly passed and taken.

#### 9.14 Instruments in Writing

All actions which may be taken and all powers that may be exercised by the Warrantholders at a meeting held as provided in this Article IX may also be taken and exercised by Warrantholders representing at least 66 2/3% of the aggregate number of all the then outstanding Warrants by an instrument in writing signed in one or more counterparts by such Warrantholders in person or by attorney duly appointed in writing, and the expression "Extraordinary Resolution" when used in this Indenture shall include an instrument so signed.

#### 9.15 Binding Effect of Resolutions

Every resolution and every Extraordinary Resolution passed in accordance with the provisions of this Article IX at a meeting of Warrantholders shall be binding upon all the Warrantholders, whether present at or absent from such meeting, and every instrument in writing signed by Warrantholders in accordance with Section 9.14 shall be binding upon all the Warrantholders, whether signatories thereto or not, and each and every Warrantholder and the Warrant Agent (subject to receiving prior indemnification pursuant to subsection 11.1(2)) shall be bound to give effect accordingly to every such resolution and instrument in writing. In the case of an instrument in writing the Warrant Agent shall give notice in the manner contemplated in Section 3.6 and Section 13.1 of the effect of the instrument in writing to all Warrantholders and the Company as soon as is reasonably practicable.

# 9.16 Holdings by Company Disregarded

In determining whether Warrantholders are present at a meeting of Warrantholders for the purpose of determining a quorum or have concurred in any consent, waiver, Extraordinary Resolution, Warrantholders' Request or other action under this Indenture, Warrants owned legally or beneficially by the Company or any Subsidiary of the Company or any other Affiliate of the Company, as determined in accordance with the provisions of Section 13.6, shall be disregarded. The Company shall provide, upon the written request of the Warrant Agent, a certificate as to the registration particulars of any Warrants held by the Company.

#### ARTICLE X SUPPLEMENTAL INDENTURES

#### 10.1 Provision for Supplemental Indentures for Certain Purposes

From time to time the Company (when properly authorized by action by the Directors) and the Warrant Agent may, subject to the provisions hereof, and they shall, when so directed in accordance with the provisions hereof and regulatory approval, execute and deliver by their proper officers, indentures, or instruments supplemental hereto, which thereafter shall form part hereof, for any one or more or all of the following purposes:

- (a) providing for the issue of additional Warrants hereunder and any consequential amendments hereto as may be required by the Warrant Agent, relying on advice of Counsel;
- (b) setting forth any adjustments resulting from the application of the provisions of Section 5.1 or any modification affecting the rights of Warrantholders hereunder on exercise of the Warrants, provided that any such adjustments or modifications shall be subject to compliance with all regulatory requirements (including the rules of any stock exchange or over-the-counter market on which the Common Shares are then listed or quoted for trading);
- (c) adding to the provisions hereof such additional covenants and enforcement provisions as, in the opinion of Counsel, are necessary or advisable, provided that the same are not in the opinion of the Warrant Agent, relying on the advice of Counsel, prejudicial to the rights or interests of the Warrantholders as a group;
- (d) giving effect to any Extraordinary Resolution passed as provided in Article IX;
- (e) making such provisions not inconsistent with this Indenture as may be necessary or desirable with respect to matters or questions arising hereunder, provided that such provisions are not, in the opinion of the Warrant Agent, relying on the advice of Counsel, prejudicial to the rights or interests of the Warrantholders as a group;
- (f) adding to or altering the provisions hereof in respect of the transfer of Warrants, making provision for the exchange of Warrant Certificates, and making any modification in the form of the Warrant Certificates which does not affect the substance thereof;
- (g) modifying any of the provisions of this Indenture or relieving the Company from any of the obligations, conditions or restrictions herein contained, provided that such modification or relief shall be or become operative or effective only if, in the opinion of the Warrant Agent, relying on the advice of Counsel, such modification or relief in no way prejudices any of the rights or interests of the Warrantholders as a group or of the Warrant Agent, and provided further that the Warrant Agent may in its sole discretion decline to enter into any such supplemental indenture which in its opinion may not afford adequate protection to the Warrant Agent when the same shall become operative; and

(h) for any other purpose not inconsistent with the terms of this Indenture, including the correction or rectification of any ambiguities, defective or inconsistent provisions, errors, mistakes or omissions herein, provided that in the opinion of the Warrant Agent, relying on the advice of Counsel, the rights or interests of the Warrant Agent and of the Warrantholders as a group are in no way prejudiced thereby.

#### 10.2 Successor Companies

In the case of the consolidation, amalgamation, merger or transfer of the undertaking or assets of the Company as an entirety or substantially as an entirety to another corporation ("successor corporation"), the successor corporation resulting from such consolidation, amalgamation, merger or transfer (if not the Company) shall expressly assume, by supplemental indenture satisfactory in form to the Warrant Agent and executed and delivered to the Warrant Agent, the due and punctual performance and observance of each and every covenant and condition of this Indenture to be performed and observed by the Company.

#### ARTICLE XI CONCERNING THE WARRANT AGENT

#### 11.1 Indenture Legislation

- (1) If, and to the extent, any provision of this Indenture limits, qualifies or conflicts with a mandatory requirement of applicable statutes of Canada and its provinces and the regulations under those statutes relating to warrant indentures ("**Applicable Legislation**"), such mandatory requirement shall prevail.
- (2) The Company and the Warrant Agent agree that each will at all times in relation to this Indenture and any action to be taken hereunder observe and comply with and be entitled to the benefit of Applicable Legislation.

# 11.2 Rights and Duties of Warrant Agent

(1) In the exercise of the rights and duties prescribed or conferred by the terms of this Indenture, the Warrant Agent shall act honestly and in good faith with a view to the best interests of the Warrantholders and shall exercise that degree of care, diligence and skill that a reasonably prudent warrant agent would exercise in comparable circumstances. No provision of this Indenture shall be construed to relieve the Warrant Agent from, or require any Person to indemnify the Warrant Agent against, liability for its own gross negligence, wilful misconduct or fraud. The duties and obligations of the Warrant Agent shall be determined solely by the provisions hereof and, accordingly, the Warrant Agent shall only be responsible for the performance of such duties and obligations as it has undertaken herein. The Warrant Agent shall retain the right not to act and shall not be held liable for refusing to act in circumstances that require the delivery to or receipt by the Warrant Agent of documentation unless it has received clear and reasonable documentation which complies with the terms of this Indenture. The Warrant Agent shall incur no liability with respect to the delivery or non-delivery of any certificate or certificates whether delivered by hand, mail or any other means, provided that it has complied with the terms of this Indenture in respect of the discharging of its obligations in respect of the delivery of such certificates. None of the provisions contained in this Indenture shall require the Warrant Agent to expend or to risk its own funds or otherwise to incur financial liability in the performance of any of its duties or in the exercise of any of its rights or powers unless indemnified and funded as aforesaid.

- (2) The obligation of the Warrant Agent to commence or continue any act, action or proceeding for the purpose of enforcing any rights of the Warrant Agent or the Warrantholders hereunder shall be conditional upon the Warrantholders furnishing, when required by notice in writing by the Warrant Agent, sufficient funds to commence or to continue such act, action or proceeding and an indemnity reasonably satisfactory to the Warrant Agent to protect and to hold harmless the Warrant Agent, its officers, directors and employees against the costs, charges and expenses and liabilities to be incurred thereby and any loss and damage it may suffer by reason thereof.
- (3) The Warrant Agent may, before commencing or at any time during the continuance of any such act, action or proceedings, require the Warrantholders, at whose instance it is acting, to deposit with the Warrant Agent the Warrant Certificates held by them, for which the Warrant Agent shall issue receipts.
- (4) Every provision of this Indenture that by its terms relieves the Warrant Agent of liability or entitles it to rely upon any evidence submitted to it is subject to the provisions of Section 11.12.

#### 11.3 Evidence, Experts and Advisers

- (1) In addition to the reports, certificates, opinions and evidence required by this Indenture, the Company shall furnish to the Warrant Agent such additional evidence of compliance with any provision hereof, and in such form as may be prescribed by Applicable Legislation or as the Warrant Agent may reasonably require by written notice to the Company.
- (2) The Warrant Agent shall be protected in acting and relying upon any written notice, request, waiver, consent, certificate, receipt, statutory declaration or other paper or document furnished to it, not only as to its due execution and the validity and effectiveness of its provisions, but also as to the truth of and acceptability of any information therein contained which it in good faith believes to be genuine and what it purports to be.
- (3) Proof of the execution of an instrument in writing, including a Warrantholders' Request, by any Warrantholder may be made by the certificate of a notary public, or other officer with similar powers, that the Person signing such instrument acknowledged to him the execution thereof, or by an affidavit of a witness to such execution or in any other manner which the Warrant Agent may consider adequate.

(4) The Warrant Agent may employ or retain such Counsel, accountants, appraisers or other experts or advisers as it may reasonably require for the purpose of determining and discharging its duties hereunder and shall not be responsible for any misconduct or negligence on the part of such experts or advisors who have been appointed and supervised with due care by the Warrant Agent. The fees of such Counsel and other experts shall be part of the Warrant Agent's fees hereunder. The Warrant Agent shall be fully protected in acting or not acting and relying, in good faith, in accordance with any opinion or instruction of such Counsel. Any remuneration so paid by the Warrant Agent shall be repaid to the Warrant Agent in accordance with Section 7.2.

#### 11.4 Action by Warrant Agent to Protect Interest

Subject to the provisions of this Indenture and Applicable Legislation, the Warrant Agent shall have power to institute and to maintain such actions and proceedings as it may consider necessary or expedient to preserve, protect or enforce its interests and the interests of the Warrantholders.

#### 11.5 Warrant Agent not Required to Give Security

The Warrant Agent shall not be required to give any bond or security in respect of the execution of the trusts and powers of this Indenture or otherwise.

#### 11.6 Protection of Warrant Agent

By way of supplement to the provisions of any law for the time being relating to trustees or warrant agents it is expressly declared and agreed as follows:

- (a) The Warrant Agent shall not be liable for or by reason of any statement of fact or recitals in this indenture or in the Warrant Certificates (except the representations contained in Section 11.8 or in the certificate of the Warrant Agent on the Warrant Certificates) or be required to verify the same, but all such statements or recitals are and shall be deemed to be made by the Company;
- (b) Nothing herein contained shall impose any obligation on the Warrant Agent to see to or to require evidence of the registration or filing (or renewal thereof) of this Indenture or any instrument ancillary or supplemental hereto;
- (c) The Warrant Agent shall not be bound to give notice to any Person or Persons of the execution hereof; and
- (d) The Warrant Agent shall not incur any liability or responsibility whatever or be in any way responsible for the consequence of any breach on the part of the Company of any of the covenants herein contained or of any acts of any Directors, officers, employees, agents or servants of the Company.

#### 11.7 Replacement of Warrant Agent; Successor by Merger

- The Warrant Agent may resign and be discharged from all further duties and liabilities hereunder, subject to this subsection 11.7(1), by giving to the Company (1)not less than 30 days prior notice in writing or such shorter prior notice as the Company may accept as sufficient. The Warrantholders by Extraordinary Resolution shall have power at any time to remove the existing Warrant Agent and to appoint a new warrant agent. In the event of the Warrant Agent resigning or being removed as aforesaid or being dissolved, becoming bankrupt, going into liquidation or otherwise becoming incapable of acting hereunder, the Company shall forthwith appoint a new warrant agent unless a new warrant agent has already been appointed by the Warrantholders; failing such appointment by the Company, the retiring Warrant Agent or any Warrantholder may apply to a justice of the Ontario Superior Court of Justice (the "Court"), at the Company's expense, on such notice as such justice may direct, for the appointment of a new warrant agent; but any new warrant agent so appointed by the Company or by the Court shall be subject to removal as aforesaid by the Warrantholders. Any new warrant agent appointed under any provision of this Section 11.7 shall be a company authorized to carry on the business of a transfer agent in the province of Ontario. On any such appointment the new warrant agent shall be vested with the same powers, rights, duties and responsibilities as if it had been originally named herein as Warrant Agent without any further assurance, conveyance, act or deed; but there shall be immediately executed, at the expense of the Company, all such conveyances or other instruments as may, in the opinion of Counsel, be necessary or advisable for the purpose of assuring the same to the new warrant agent, provided that, any resignation or removal of the Warrant Agent and appointment of a successor warrant agent shall not become effective until the successor warrant agent shall have executed an appropriate instrument accepting such appointment and, at the request of the Company, the predecessor Warrant Agent, upon payment of its outstanding remuneration and expenses, shall execute and deliver to the successor warrant agent an appropriate instrument transferring to such successor warrant agent all rights and powers of the Warrant Agent hereunder.
- (2) Upon the appointment of a successor warrant agent, the Company shall promptly notify the Warrantholders thereof in the manner provided for in Section 3.6.
- (3) This Indenture shall enure to the benefit of and be binding upon the parties hereto and their respective successors and assigns. The Company agrees that the Warrant Agent may assign its rights and duties under this Indenture to one of its affiliates without the need for any further notice to, or approval from, the Company.

(4) Any Warrants certified but not delivered by a predecessor Warrant Agent may be certified by the new or successor warrant agent in the name of the predecessor or the new or successor warrant agent.

#### 11.8 Conflict of Interest

- (1) The Warrant Agent represents to the Company that to the best of its knowledge at the time of execution and delivery hereof no material conflict of interest exists in its role as a warrant agent hereunder and agrees that in the event of a material conflict of interest arising hereafter it shall immediately notify the Company of the material conflict of interest with complete details of the conflict and such other information as the Company may reasonably request in connection therewith and, within ninety (90) days after ascertaining that it has such material conflict of interest, either eliminate the same or resign its trusts hereunder to a successor warrant agent approved by the Company and meeting the requirements set forth in subsection 11.7(1). Notwithstanding the foregoing provisions of this subsection 11.8(1), if any such material conflict of interest, exists or hereinafter shall exist, the validity and enforceability of this Indenture and the Warrant Certificates shall not be affected in any manner whatsoever by reason thereof.
- (2) Subject to subsection 11.8(1), the Warrant Agent, in its personal or any other capacity, may buy, lend upon and deal in securities of the Company and generally may contract and enter into financial transactions with the Company or any Subsidiary of the Company without being liable to account for any profit made thereby.

#### 11.9 Warrant Agent Not to be Appointed Receiver

The Warrant Agent and any Person related to the Warrant Agent shall not be appointed a receiver, a receiver and manager or liquidator of all or any part of the assets or undertaking of the Company.

#### 11.10 Payments by Warrant Agent

The forwarding of a cheque by the Warrant Agent will satisfy and discharge the liability for any amounts due to the extent of the sum or sums represented thereby (plus the amount of any tax deducted or withheld as required by law) unless such cheque is not honoured on presentation; provided that in the event of the non-receipt of such cheque by the payee, or the loss or destruction thereof, the Warrant Agent, upon being furnished with reasonable evidence of such non-receipt, loss or destruction and indemnity reasonably satisfactory to it, will issue to such payee a replacement cheque for the amount of such cheque.

#### 11.11 Deposit of Securities

The Warrant Agent shall not be responsible or liable in any manner whatsoever for the sufficiency, correctness, genuineness or validity of any security deposited with

#### 11.12 Act, Error, Omission etc.

The Warrant Agent shall not be liable for any error in judgement or for any act done or step taken or omitted by it in good faith, for any mistake, in fact or law, or for anything which it may do or refrain from doing in connection herewith except arising out of its own gross negligence, wilful misconduct or fraud.

#### 11.13 Indemnification

Without limiting any protection or indemnity of the Warrant Agent under any other provision hereof, or otherwise at law, the Company hereby agrees to indemnify and hold harmless the Warrant Agent and its directors, officers, agents and employees from and against any and all liabilities, losses, damages, penalties, claims, actions, suits, costs, expenses and disbursements, including reasonable legal or advisor fees and disbursements, of whatever kind and nature which may at any time be imposed on, incurred by or asserted against the Warrant Agent and its directors, officers, agents and employees in connection with the performance of its duties and obligations hereunder, other than such liabilities, losses, damages, penalties, claims, actions, suits, costs, expenses and disbursements arising by reason of gross negligence, wilful misconduct or fraud of the Warrant Agent and its directors, officers, agents and employees. This provision shall survive the resignation or removal of the Warrant Agent, or the termination of this Indenture.

The Warrant Agent shall not be under any obligation to prosecute or defend any action or suit in respect of this Indenture which, in the opinion of its counsel, may involve it in expense or liability, unless the Company shall, so often as required, furnish the Warrant Agent with satisfactory indemnity and funding against such expense or liability.

#### 11.14 Notice

The Warrant Agent shall not be bound to give any notice or do or take any act, action or proceeding by virtue of the powers conferred on it hereby unless and until it shall have been required to so under the terms hereof; nor shall the Warrant Agent be required to take notice of any default hereunder, unless and until notified in writing of such default, which notice shall distinctly specify the default desired to be brought to the attention of the Warrant Agent and in the absence of any such notice the Warrant Agent may for all purposes of this Indenture conclusively assume that no default has been made in the observance or performance of any of the representations, warranties, covenants, agreements or conditions contained herein. Any such notice shall in no way limit any discretion herein given the Warrant Agent to determine whether or not the trustee shall take action with respect to any default.

#### 11.15 Reliance by the Warrant Agent

The Warrant Agent may act on the opinion or advice obtained from Counsel to the Warrant Agent and shall, provided it acts in good faith in reliance thereon, not be responsible for any loss occasioned by doing so nor shall it incur any liability or responsibility for determining in good faith not to act upon such opinion or advice. The Warrant Agent may rely, and shall be protected in relying, upon any statement, request, direction or other paper or document believed by it to be genuine and to have been signed, sent or presented by or on behalf of the proper party or parties. The Warrant Agent may assume for the purposes of this Indenture that any address on the register of the Warrantholders is the holder's actual address and is also determinative as to residency and that the address of any transferee to whom any Common Shares are to be registered, as shown on the transfer document is the transferee's actual address and is also determinative as to residency of the transferee. The Warrant Agent shall have no obligation to ensure that legends appearing on the Warrant Certificates or Common Shares comply with regulatory requirements or securities laws of any applicable jurisdiction.

#### 11.16 Privacy

The parties to this Warrant Indenture acknowledge that federal and/or provincial legislation that addresses the protection of individuals' personal information (collectively, "**Privacy Laws**.") applies to obligations and activities under this Warrant Indenture. Despite any other provision of this Warrant Indenture, neither party shall take or direct any action that would contravene, or cause the other party to contravene, applicable Privacy Laws. The Company shall, prior to transferring or causing to be transferred personal information to the Warrant Agent, obtain and retain required consents of the relevant individuals to the collection, use and disclosure of their personal information, or shall have determined that such consents either have previously been given upon which the parties can rely or are not required under applicable Privacy Laws. The Warrant Agent shall use commercially best efforts to ensure that its services hereunder comply with applicable Privacy Laws. Specifically, the Warrant Agent agrees: (a) to have a designated chief privacy officer; (b) to maintain policies and procedures to protect personal information and not to use it for any other purpose except with the consent of or direction from the Company or the individual involved; (d) not to sell or otherwise improperly disclose personal information to any third party; and (e) to employ administrative, physical and technological safeguards to reasonably secure and protect personal information against loss, theft or unauthorized access, use or modification.

#### 11.17 Anti-Money Laundering

The Warrant Agent shall retain the right not to act and shall not be liable for refusing to act if, due to a lack of information or for any other reason whatsoever, the Warrant Agent, in its sole judgment, acting reasonably, determines that such act might cause it to be in noncompliance with any applicable anti-money laundering, anti-terrorist or economic sanction legislation, regulation or guideline. Further, should the Warrant Agent, in its sole judgment, acting reasonably, determine at any time that its acting under this Indenture has resulted in its being in non-compliance with any applicable anti-money laundering, anti-terrorist or economic sanction legislation, regulation or guideline, then it shall have the right to resign on 10 Business Days' prior written notice sent to the Company provided that (i) the Warrant Agent's written notice shall describe the circumstances of such non-compliance; and (ii) if such circumstances are rectified to the Warrant Agent's satisfaction within such 10-Business Day period, then such resignation shall not be effective.

#### 11.18 Force Majeure

Neither party to this Indenture shall be personally liable to the other, or held in breach of this Indenture, if prevented, hindered, or delayed in the performance or observance of any provision contained herein by reason of an act of God, riots, terrorism, acts of war, epidemics, governmental action or judicial order, earthquakes, or any other similar causes (including, but not limited to, mechanical, electronic or communication interruptions, disruptions or failures). Performance times under this Indenture shall be extended for a period of time equivalent to the time lost because of any delay that is excusable under this Section 11.18.

#### ARTICLE XII ACCEPTANCE OF TRUSTS BY WARRANT AGENT

#### 12.1 Appointment and Acceptance of Functions

The Company hereby appoints the Warrant Agent under the terms and conditions set forth in this Indenture. The Warrant Agent hereby accepts the terms of this Indenture declared and provided for and agrees to perform the same upon the terms and conditions set forth herein.

#### ARTICLE XIII GENERAL

#### 13.1 Notice to the Company and the Warrant Agent

- (1) Unless herein otherwise expressly provided, any notice to be given hereunder to the Company and to the Warrant Agent shall be in writing and may be given by mail, or by facsimile (with original copy to follow by mail) or by personal delivery and shall be addressed as follows:
  - (a) if to the Company, to

Titan Medical Inc. 170 University Avenue Suite 1000 Toronto, Ontario M5H 3B3

Attention:Stephen RandallFacsimile:(647) 348-1512

with a copy to:

Borden Ladner Gervais LLP Bay Adelaide Centre, East Tower 22 Adelaide Street West, Suite 3400 Toronto, Ontario M5H 3E3

Attention:Manoj PunditFacsimile:(416) 367-6749

(b) if to the Warrant Agent, to

Computershare Trust Company of Canada 100 University Avenue 11th Floor Toronto, Ontario M5J 2Y1

Attention:General Manager, Corporate Trust DepartmentFacsimile:(416) 981-9777

and shall be deemed to have been given, if delivered or sent by courier, on the date of delivery or, if mailed, on the third  $(3^{rd})$  Business Day following the date of the postmark on such notice or, if sent by facsimile, on the date of facsimile transmission. Any delivery made or sent by facsimile on a day other than a Business Day, or after 3:00 p.m. (Toronto time) on a Business Day, shall be deemed to be received on the next following Business Day.

- (2) The Company or the Warrant Agent, as the case may be, may from time to time give notice in the manner provided in subsection 13.1(1) of a change of address which, from the effective date of such notice and until changed by like notice, shall be the address of the Company or the Warrant Agent, as the case may be, for all purposes of this Indenture. A copy of any notice of change of address of the Company given pursuant to this subsection 13.1(2) shall be sent to the principal transfer office of the Warrant Agent in the City of Toronto, Ontario and shall be available for inspection by Warrantholders during normal business hours.
- (3) If, by reason of a strike, lockout or other work stoppage, actual or threatened, involving postal employees, any notice to be given to the Warrant Agent or to the Company hereunder could reasonably be considered unlikely to reach its destination, such notice shall be valid and effective only if it is delivered to an officer of the party to which it is addressed or if it is delivered to such party at the appropriate address provided in subsection 13.1(1) by facsimile or other means of prepaid, transmitted, recorded communication and any such notice delivered in accordance with the foregoing shall be deemed to have been received on the date of delivery to such officer or if delivered by facsimile or other means of prepaid, transmitted, recorded communication, on the first Business Day following the date of the sending of such notice by the Person giving such notice.

#### 13.2 Time of the Essence

Time shall be of the essence in this Indenture.

# 13.3 Counterparts and Formal Date

This Indenture may be executed in several counterparts, each of which when so executed shall be deemed to be an original and such counterparts together shall constitute one and the same instrument and notwithstanding their date of execution shall be deemed to be dated as of the date hereof.

#### 13.4 Discretion of Directors

Any matter provided herein to be determined by the Directors shall be determined by the Directors in their sole discretion and any determination so made will be conclusive.

#### 13.5 Satisfaction and Discharge of Indenture

Upon the earlier of (a) the date by which there shall have been delivered to the Warrant Agent for exercise or cancellation of all Warrant Certificates theretofore certified hereunder or (b) the expiration of the Exercise Period, this Indenture, except to the extent that Common Shares and certificates therefor have not been issued and delivered hereunder or the Warrant Agent or the Company have not performed any of their obligations hereunder, shall cease to be of further effect and the Warrant Agent, on demand of and at the cost and expense of the Company and upon delivery to the Warrant Agent of a certificate of the Company stating that all conditions precedent to the satisfaction and discharge of this Indenture have been complied with and upon payment to the Warrant Agent of the fees and other remuneration payable to the Warrant Agent, shall execute proper instruments acknowledging satisfaction of and discharging of this Indenture.

#### 13.6 Provisions of Indenture and Warrant Certificates for the Sole Benefit of Parties and Warrantholders

Nothing in this Indenture or the Warrant Certificates, expressed or implied, shall give or be construed to give to any Person other than the parties hereto and the holders of the Warrant Certificates any legal or equitable right, remedy or claim under this Indenture, or under any covenant or provision herein contained, all such covenants and provisions being for the sole benefit of the parties hereto and the Warrantholders.

# 13.7 Common Shares or Warrants Owned by the Company or its Subsidiaries Certificates to be Provided

For the purpose of disregarding any Warrants owned legally or beneficially by the Company or any Subsidiary of the Company or any other Affiliate of the Company in Section 9.16, the Company shall provide to the Warrant Agent, from time to time, a certificate of the Company setting forth as at the date of such certificate (a) the names (other than the name of the Company) of the registered holders of Common Shares which, to the knowledge of the Company, are owned by or held for the account of the Company or any Subsidiary of the Company or any other Affiliate of the Company; and (b) the number of Warrants owned legally and beneficially by the Company or any Subsidiary of the Company or any other Affiliate of the Company, and the Warrant Agent in making the determination in Section 9.16 shall be entitled to rely on such certificate.

# [REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]

# TITAN MEDICAL INC.

By: (signed) "Stephen Randall"

Name: Stephen Randall

Title: Chief Financial Officer

# COMPUTERSHARE TRUST COMPANY OF CANADA

By:(signed) "Robert Morrison"Name:Robert MorrisonTitle:Corporate Trust OfficerBy:(signed) "Charles Cuschieri"Name:Charles CuschieriTitle:Associate Trust Officer

#### SCHEDULE "A" FORM OF WARRANT CERTIFICATE

# [For U.S. Persons, persons in the United States or persons for the account or benefit of a U.S. Person or a person in the United States, the following legend is to be inserted:]

THE SECURITIES REPRESENTED HEREBY AND THE SECURITIES ISSUABLE UPON EXERCISE HEREOF HAVE NOT BEEN AND WILL NOT BE REGISTERED UNDER THE UNITED STATES SECURITIES ACT OF 1933, AS AMENDED (THE "U.S. SECURITIES ACT") OR U.S. STATE SECURITIES LAWS. THESE SECURITIES OFFERED, SOLD, PLEDGED OR OTHERWISE TRANSFERRED, DIRECTLY OR INDIRECTLY, ONLY (A) TO TITAN MEDICAL INC. (THE "CORPORATION", (B) OUTSIDE THE UNITED STATES IN COMPLIANCE WITH RULE 904 OF REGULATION S UNDER THE U.S. SECURITIES ACT AND IN COMPLIANCE WITH APPLICABLE LOCAL LAWS AND REGULATIONS, (C) IN COMPLIANCE WITH THE EXEMPTION FROM THE REGISTRATION REQUIREMENTS UNDER THE U.S. SECURITIES ACT PROVIDED BY (I) RULE 144 OR (II) RULE 1444 THEREUNDER, IF AVAILABLE, AND IN EACH CASE IN ACCORDANCE WITH APPLICABLE U.S. STATE SECURITIES LAWS, (D) IN ANOTHER TRANSACTION THAT DOES NOT REQUIRE REGISTRATION UNDER THE U.S. SECURITIES ACT OR ANY APPLICABLE U.S. STATE SECURITIES LAWS, (D) IN ANOTHER TRANSACTION THAT DOES NOT REQUIRE REGISTRATION UNDER THE U.S. SECURITIES ACT OR ANY APPLICABLE STATE SECURITIES LAWS, (D) (D) OR (E) ABOVE, THE HOLDER HAS, PRIOR TO SUCH TRANSFER, FURNISHED TO THE CORPORATION AN OPINION OF COUNSEL OR OTHER EVIDENCE OF EXEMPTION, IN EITHER CASE, REASONABLY SATISFACTORY TO THE CORPORATION THAT THE TRANSACTION DOES NOT REQUIRE REGISTRATION UNDER THE U.S. SECURITIES ACT, PROVIDED THAT, IN THE CONSTITUER EVIDENCE OF EXEMPTION, IN EITHER CASE, REASONABLY SATISFACTORY TO THE CORPORATION THAT THE TRANSACTION DOES NOT REQUIRE REGISTRATION UNDER THE U.S. SECURITIES ACT, PROVIDED THAT, IN THE CONSTITUTE "GOOD DELIVERY" IN SETTLEMENT OF TRANSACTIONS ON STOCK EXCHANGES IN CANADA.

THIS WARRANT AND THE SECURITIES ISSUABLE UPON EXERCISE HEREOF HAVE NOT BEEN REGISTERED UNDER THE U.S. SECURITIES ACT. THIS WARRANT MAY NOT BE EXERCISED BY OR ON BEHALF OF A U.S. PERSON OR PERSON IN THE UNITED STATES UNLESS THE SHARES ISSUABLE UPON EXERCISE OF THIS WARRANT HAVE BEEN REGISTERED UNDER THE U.S. SECURITIES ACT AND THE APPLICABLE SECURITIES LEGISLATION OF ANY SUCH STATE OR EXEMPTIONS FROM SUCH REGISTRATION REQUIREMENTS ARE AVAILABLE. "UNITED STATES" AND "U.S. PERSON" ARE AS DEFINED BY REGULATION S UNDER THE U.S. SECURITIES ACT.

#### TITAN MEDICAL INC.

a corporation existing under the laws of the Province of Ontario and having its principal office at 170 University Avenue, Suite 1000, Toronto, Ontario, M5H 3B3

CUSIP: 88830X264

ISIN: CA88830X2648

WARRANTS

Each whole warrant entitling the holder to purchase one (1) common share of Titan Medical Inc.

#### COMMON SHARE PURCHASE WARRANTS

THIS IS TO CERTIFY THAT for value received • (the 'Holder') is the registered holder of the number of warrants (the 'Warrants') stated above and is entitled, for each whole Warrant represented hereby, to purchase one Common Share (subject to adjustment as hereinafter referred to) in the capital of Titan Medical Inc. (the 'Company') at any time from the date of issue hereof up to and including 5:00 p.m. (Toronto Time) on March 16, 2021 (the 'Expiry Time') by surrendering to Computershare Trust Company of Canada (the 'Warrant Agent') at its principal transfer office in Toronto, Ontario this Warrant Certificate with a subscription in the form of the attached Subscription Form duly completed and executed and accompanied by payment of CDN\$0.50 per share, subject to adjustment as hereinafter referred to (the ''Exercise Price'') by certified cheque, money order or bank draft in lawful money of Canada payable to or to the order of the Company at par in Toronto, Ontario. The Holder may purchase less than the number of Common Shares which the Holder is entitled to purchase on the exercise of the Warrants represented by this Warrant Certificate, in which event a new Warrant Certificate representing the Warrants not then exercised will be issued to the holder.

The Warrants represented by this Warrant Certificate shall be deemed to have been surrendered and payment by certified cheque, money order or bank draft shall be deemed to have been made, only upon personal delivery thereof or, if sent by post or other means of transmission, upon actual receipt thereof by the Warrant Agent at the office specified above.

This Warrant Certificate represents Warrants issued under the provisions of the Warrant Indenture (which indenture together with all other instruments supplemental or ancillary there is referred to herein as the "Warrant Indenture") dated as of March 16, 2017 between the Company and the Warrant Agent, which contains particulars of the rights of the holders of the Warrants and the Company and of the Warrant Agent in respect thereof and the terms and conditions upon which the Warrants are issued and held, all to the same effect as if the provisions of the Warrant Indenture were herein set forth, to all of which the holder of this Warrant Certificate by acceptance hereof assents. A copy of the Warrant Indenture is available for inspection on the Company's profile on www.sedar.com or the Company shall, on the written request of the Holder and without charge, provide the Holder with a copy of the Warrant Indenture. Capitalized terms used in this Warrant Certificate and not otherwise defined shall have the meanings ascribed thereto in the Warrant Indenture. In the event of any inconsistency between the provisions of the Warrant Indenture (and any amendments thereto and instruments supplemental thereto) and the provisions of this Warrant Certificate, the provisions of the Warrant Indenture shall prevail.

NO. •

Subject to the Indenture and to any restriction under applicable law or policy of any applicable regulatory body, the Warrants and Warrant Certificates and the rights thereunder shall only be transferable by the registered holder hereof in compliance with the conditions prescribed in the Indenture and the due completion, execution and delivery of a Transfer Form (as attached hereto) in accordance with the terms of the Indenture.

Upon due exercise of the Warrants represented by this Warrant Certificate and payment of the Exercise Price, the Company shall cause to be issued, within five (5) Business Days after the exercise of Warrants represented by this Warrant Certificate, to the person(s) in whose name(s) the Common Shares so subscribed for are to be issued, the number of Common Shares, as fully paid and non-assessable and Certificate(s) representing such Common Shares and such person(s) shall become a holder in respect of such Common Shares with effect from the date of such exercise and upon the due surrender of this Warrant Certificate.

The Warrant Indenture provides for adjustment in the number of Common Shares to be delivered upon exercise of the right of purchase hereby granted and to the Exercise Price in certain events therein set forth.

The Warrants represented hereby and the Common Shares issuable upon the exercise hereof, have not been registered under the United States Securities Act of 1933, as amended, or applicable state securities laws, and the Warrants evidenced by this Warrant Certificate may not be exercised unless the Holder hereof provides the Company with a written certification in the form as set forth on the Subscription Form on the reverse side of this Warrant Certificate.

The Warrants and the Warrant Indenture shall be governed by and performed, construed and enforced in accordance with the laws of the Province of Ontario and the federal laws applicable therein and shall be treated in all respects as Ontario contracts.

Time shall be of the essence hereof and of the Warrant Indenture.

This Warrant Certificate shall not be valid for any purpose until it has been certified by or on behalf of the Warrant Agent for the time being under the Warrant Indenture.

IN WITNESS WHEREOF this Warrant Certificate has been executed on behalf of Titan Medical Inc. as of the \_\_\_\_\_ day of March, 2017.

# TITAN MEDICAL INC.

- 4 -

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This Warrant Certificate represents Warrants referred to in the Warrant Indenture within mentioned.

Countersigned:

# COMPUTERSHARE TRUST COMPANY OF CANADA

Dated:

By:

TO: Computershare Trust Company of Canada 100 University Avenue 11th Floor, North Tower Toronto, ON M5J 2Y1

Attention: General Manager, Corporate Trust Department

The undersigned holder of the within Warrants hereby irrevocably subscribes for \_\_\_\_\_\_ Common Shares of Titan Medical Inc. (the **'Company**') at the Exercise Price referred to in the attached Warrant Certificate on the terms and conditions set forth in such certificate and the Warrant Indenture and encloses herewith a certified cheque, bank draft or money order payable at par in Toronto, Ontario to the order of Titan Medical Inc. in payment in full of the subscription price of the number of Common Shares hereby subscribed for.

The undersigned represents, warrants and certifies as follows (one (only) of the following must be checked):

- [] A. the undersigned holder: (a) at the time of exercise of the Warrants is not in the United States; (b) is not a "U.S. person" as defined in Regulation S under the United States Securities Act of 1933, as amended (the "U.S. Securities Act"), and is not exercising the Warrants on behalf of a "U.S. person"; and (c) has in all other aspects complied with the terms of an "offshore transaction" within the meaning of Regulation S under the U.S. Securities Act;
- [] B. the undersigned holder: (a) purchased Units directly from the Company for its own account or the account of another institutional "accredited investor", as that term is defined in Rule 501(a)(1), (2), (3) or (7) of Regulation D under the U.S. Securities Act (an "Accredited Investor"), pursuant to an executed Form of U.S. Subscription Agreement for Accredited Investors attached to the U.S. Placement Memorandum, for the purchase of Units of the Company; (b) is exercising the Warrants solely for its own account or the account of such other Accredited Investor for whose account such holder exercises sole investment discretion; (c) was an Accredited Investor, both on the date the Units were purchased from the Company and on the date of the exercise of whose account the undersigned holder originally acquired Units upon the exercise of which the Warrants were acquired and was an Accredited Investor, both on the date the Units were purchased from the Company and on the date of the exercise of the Warrants, both on the date the Units were purchased from the Warrants were acquired and was an Accredited Investor, both on the date the Units were purchased from the Company and on the date of the exercise of the Warrants.
- [] C. the undersigned holder has delivered to the Company an opinion of counsel (which will not be sufficient unless it is from counsel of recognized standing and in form and substance satisfactory to the Company) to the effect that an exemption from the registration requirements of the U.S. Securities Act and applicable state securities laws is available for the issuance of the Common Shares issuable upon exercise of the Warrants.

- 2 -

Notes:

(1) Certificates will not be registered or delivered to an address in the United States unless either Box B or C above is checked.

- (2) If Box B or C is checked, the certificate representing the Common Shares will bear a legend restricting transfer without registration under the United Securities Act of 1933, as amended and applicable state securities laws unless an exemption from registration is available.
- (3) If Box C above is checked, holders are encouraged to consult with the Company in advance to determine that the legal opinion tendered in connection with the exercise will be satisfactory in form and substance to the Company. The undersigned hereby directs that the said Common Shares be issued as follows:

| Name(s) in full                                   | Address(es)             | Number(s) of                                                          |  |
|---------------------------------------------------|-------------------------|-----------------------------------------------------------------------|--|
|                                                   | (including Postal Code) | Common Shares                                                         |  |
| (please print)                                    |                         |                                                                       |  |
| DATED this day of, 20 _                           |                         |                                                                       |  |
|                                                   |                         |                                                                       |  |
| Signature Guaranteed                              |                         | Name of Warrantholder                                                 |  |
| Name of Authorized Representative                 |                         | Signature of Warrantholder or Authorized Representative               |  |
|                                                   |                         | (Print Name of Subscriber)                                            |  |
|                                                   |                         |                                                                       |  |
| Title or Capacity of Authorized<br>Representative |                         | Daytime Phone Number of Warrantholder<br>or Authorized Representative |  |
|                                                   |                         |                                                                       |  |
|                                                   |                         | (Address of Subscriber in full)                                       |  |

[] Please check this box if the securities are to be picked up at the office where the Warrant Certificate is surrendered, failing which the securities will be mailed to the address indicated above.

# Instructions:

The signature of the Warrantholder must be the signature of the registered holder appearing on the face of this Warrant Certificate.

If this Subscription Form is signed by a trustee, executor, administrator, curator, guardian, attorney, officer of a corporation or any person acting in a fiduciary or representative capacity, this Subscription Form must be accompanied by evidence of authority to sign satisfactory to the Warrant Agent and the Company, acting reasonably.

The signature on this Subscription Form must be guaranteed by a major Canadian chartered bank, medallion guaranteed by a recognized medallion signature guarantee program or in any other manner satisfactory to the Warrant Agent. The guarantor must affix a stamp bearing the actual words "Signature Guaranteed". Signature guarantees are not accepted from Treasury Branches or credit unions unless they are members of the Stamp Medallion Program. In the United States, signature guarantees must be done by members of the "Medallion Signature Guarantee Program" only.

If securities are to be issued to a person other than the registered holder, the Subscription Form must be completed and the holder must pay or cause to be paid to the Company all applicable transfer or similar taxes, if any, and the Company shall not be required to issue or deliver certificates evidencing the Common Shares and, if applicable, the Warrants, unless and until such holder shall have paid to the Company the amount of such tax or shall have established to the satisfaction of the Company that such tax has been paid or that no tax is due.

The Warrants will expire at 5:00 p.m. (Toronto Time) on March 16, 2021 and must be exercised before that time, otherwise the same shall expire and be void and of no value.

#### TRANSFER FORM

# ANY TRANSFER OF WARRANTS WILL REQUIRE COMPLIANCE WITH APPLICABLE SECURITIES LEGISLATION. TRANSFERORS AND TRANSFEREES ARE URGED TO CONTACT LEGAL COUNSEL BEFORE EFFECTING ANY SUCH TRANSFER.

FOR VALUE RECEIVED, the undersigned hereby sells, assigns and transfers unto (name)

#### (the "Transferee"),

#### (Residential Address of Transferee)

Warrants of Titan Medical Inc. (the "**Company**") registered in the name of the undersigned on the records of the Company represented by the within Warrant Certificate, and irrevocably appoints \_\_\_\_\_\_ as the attorney of the undersigned to transfer the said securities on the books or register of transfer, with full power of substitution.

In the case of a warrant certificate that does not contain a U.S. restrictive legend, the undersigned hereby represents, warrants and certifies that either:

- a) the undersigned transferee (i) is not a U.S. Person (as defined in Rule 902(k) of Regulation S under the United States Securities Act of 1933, as amended, the "U.S. Securities Act"), (ii) at the time of transfer is not within the United States, and (iii) is not acquiring any of the Warrants represented by this Warrant Certificate by or on behalf of any U.S. Person or person within the United States, unless registered under the U.S. Securities Act and any applicable state securities laws or unless an exemption from such registration is available; or
- b) if the proposed transfer is to, or for the account or benefit of a U.S. Person or to a person in the United States, the undersigned hereby represents, warrants and certifies that the transfer of the Warrants is being completed pursuant to an exemption from the registration requirements of the U.S. Securities Act and any applicable state securities laws, in which case the undersigned has furnished to the Corporation and the Warrant Agent an opinion of counsel of recognized standing in form and substance reasonably satisfactory to the Corporation to such effect.

In the case of a warrant certificate that contains a U.S. restrictive legend, the undersigned hereby represents, warrants and certifies that (one (only) of the following must be checked):

[] (A) the transfer is being made only to the Corporation;

- [] (B) the transfer is being made outside the United States in accordance with Rule 904 of Regulation S under the U.S. Securities Act, and in compliance with any applicable local securities laws and regulations and the holder has provided herewith the Declaration for Removal of Legend attached as Schedule "B" to the Indenture or has furnished to the Corporation and the Warrant Agent an opinion of counsel of recognized standing in form and substance reasonably satisfactory to the Corporation that the transfer does not require registration under the U.S. Securities Act or any applicable state securities laws, or
- [] (C) the transfer is being made within the United States or to, or for the account or benefit of, U.S. Persons, in accordance with a transaction that does not require registration under the U.S. Securities Act or any applicable state securities laws and the undersigned has furnished to the Corporation and the Warrant Agent an opinion of counsel of recognized standing in form and substance reasonably satisfactory to the Corporation to such effect.

**DATED** the \_\_\_\_\_\_ day of \_\_\_\_\_\_, 20 \_\_\_\_.

Signature Guaranteed (Signature of Holder, to be the same as appears on the face of this Warrant Certificate)

Signature Guaranteed

(Signature of Holder, to be the same as appears on the face of this Warrant Certificate)

Print Name

Address

#### **Instructions:**

If this Transfer Form is signed by a trustee, executor, administrator, curator, guardian, attorney, officer of a corporation or any person acting in a fiduciary or representative capacity, this Transfer Form must be accompanied by evidence of authority to sign satisfactory to the Warrant Agent and the Company, acting reasonably.

The signature on this Transfer Form must be guaranteed by a major Canadian chartered bank, medallion guaranteed by a recognized medallion signature guarantee program or in any other manner satisfactory to the Warrant Agent. The guarantor must affix a stamp bearing the actual words "Signature Guaranteed". Signature guarantees are not accepted from Treasury Branches or credit unions unless they are members of the Stamp Medallion Program. In the United States, signature guarantees must be done by members of the "Medallion Signature Guarantee Program" only.

#### SCHEDULE "B" FORM OF DECLARATION FOR REMOVAL OF U.S. LEGEND

# FORM OF DECLARATION FOR REMOVAL OF LEGEND

TO: Computershare Trust Company of Canada as registrar and transfer agent for Common Shares and Warrants of Titan Medical Inc. (the "Corporation")

The undersigned (A) acknowledges that the sale of \_\_\_\_\_\_\_ [common shares/warrants] of the Corporation represented by certificate number to which this declaration relates is being made in reliance on Rule 904 of Regulation S under the United States Securities Act of 1933, as amended (the "U.S. Securities Act") and (B) certifies that (1) the seller is not (a) an "affiliate" (as that term is defined in Rule 405 under the U.S. Securities Act) of the Corporation, (b) a "distributor" as defined in Regulation S or (c) an affiliate of a distributor; (2) the offer of such securities was not made to a person in the United States and either (a) at the time the buy order was originated, the buyer was outside the United States, or the seller and any person acting on its behalf reasonably believed that the buyer was outside the United States, or (b) the transaction was executed on or through the facilities of the Toronto Stock Exchange or another designated offshore securities market and neither the seller nor any person acting on its behalf knows that the transaction has been prearranged with a buyer in the United States; (3) neither the seller nor any affiliate of the seller nor any person acting on their behalf has engaged or will engage in any directed selling efforts in the United States; in connection with the offer and sale of such securities; (4) the sale is bona fide and not for the purpose of "washing off" the resale restrictions imposed because the securities are "restricted securities" (as that term is defined in Rule 144(a)(3) under the U.S. Securities Act); (5) the seller does not intend to replace securities sold in reliance on Rule 904 of Regulation S, is part of a plan or scheme to evade the registration provisions of the U.S. Securities Act. Terms used herein have the meanings given to them by Regulation S under the U.S. Securities Act.

Dated:

Х

Authorized signatory

Name of Seller (please print)

Name of authorized signatory (please print)

Title of authorized signatory (please print)

#### Affirmation By Seller's Broker-Dealer (required for sales in accordance with Section (B)(2)(b) above)

We have read the foregoing representations of our customer, \_\_\_\_\_\_\_\_\_\_(the "Seller") dated \_\_\_\_\_\_\_, with regard to our sale, for such Seller's account, of the securities of the Corporation described therein, and on behalf of ourselves we certify and affirm that (A) we have no knowledge that the transaction had been prearranged with a buyer in the United States, (B) the transaction was executed on or through the facilities of designated offshore securities market, (C) neither we, nor any person acting on our behalf, engaged in any directed selling efforts in connection with the offer and sale of such securities, and (D) no selling concession, fee or other remuneration is being paid to us in connection with this offer and sale other than the usual and customary broker's commission that would be received by a person executing such transaction as agent. Terms used herein have the meanings given to them by Regulation S under the U.S. Securities Act.

Name of Firm

By:

Authorized officer

Date:

### Item 1 Name and Address of Company

Titan Medical Inc. (the **"Company"** or **"Titan"**) 170 University Avenue Suite 1000 Toronto, Ontario M5H 3B3

# Item 2 Date of Material Change

March 10, 2017 and March 16, 2017.

# Item 3 News Release

The press releases attached as Schedule "A" and Schedule "B" were disseminated through Marketwired on March 10, 2017 and March 16, 2017, respectively, with respect to the material changes.

# Item 4 Summary of Material Change

On March 10, 2017, the Company filed a prospectus supplement to the Company's base shelf prospectus dated August 18, 2015 with securities regulators in Ontario, British Columbia and Alberta, with respect to its previously announced offering of units (the "Offering").

On March 16, 2017 the Company announced that the Offering had closed.

| Item 5                                                                   | Full Description of Material Change                         |  |
|--------------------------------------------------------------------------|-------------------------------------------------------------|--|
| 5.1                                                                      | Full Description of Material Change                         |  |
| Please see the press releases attached as Schedule "A" and Schedule "B". |                                                             |  |
| 5.2                                                                      | Disclosure for Restructuring Transactions                   |  |
| Not applicable.                                                          |                                                             |  |
| Item 6                                                                   | Reliance on subsection 7.1(2) of National Instrument 51-102 |  |
| Not applicable.                                                          |                                                             |  |
| Item 7                                                                   | Omitted Information                                         |  |
| Not applicable.                                                          |                                                             |  |
|                                                                          |                                                             |  |

#### Item 8 Executive Officer

The following executive officer is knowledgeable about the material changes and may be contacted about this report:

Stephen Randall Chief Financial Officer (416) 548-7522 (ext. 152)

Email: stephen@titanmedicalinc.com Website: www.titanmedicalinc.com

# Item 9 Date of Report

March 16, 2017.

Schedule "A"

[See Attached]

# TITAN MEDICAL.

170 University Avenue • Suite 1000 Toronto, Ontario, Canada M5H 3B3 •Tel: 416.548.7522 info@titanmedicalinc.com•www.titanmedicalic.com

#### **Titan Medical Inc. Announces Filing of Prospectus Supplement**

Toronto, ON – (Marketwired – March 10, 2017) – Titan Medical Inc. ("Titan" or the "Company") (TSX: TMD) (OTCQX: TITXF) is pleased to announce that it has today filed a prospectus supplement (the "Prospectus Supplement") to the Company's short form base shelf prospectus dated August 18, 2015 (with the Prospectus Supplement, the "Prospectus"), regarding its previously announced public offering (the 'Offering") of units of the Company ("Units"). Each Unit is comprised of one common share of the Company (a "Common Share") and (i) one-half of one common share purchase warrant, each whole warrant exercisable for one Common Share, at a price of C\$0.40 for a period of two years following the closing of the Offering (the "Closing"), and (ii) one-half of one common share purchase warrant, each whole warrant exercisable for one Common Share, at a price of C\$0.50 for a period of four years following Closing.

Bloom Burton Securities Inc. (the "Agent") has agreed to sell, on a best efforts agency basis, a minimum of 15,333,714 Units and a maximum of 21,467,200 Units at a price of C\$0.35 per Unit for total gross proceeds of a minimum of approximately C\$5,366,800 and a maximum of approximately C\$7,513,520.

The Offering is subject to a number of conditions, including, without limitation, receipt of all regulatory approvals.

The net proceeds of the Offering (the "Net Proceeds") will be used to fund continued development work in connection with the Company's SPORT<sup>TM</sup> Surgical System, as well as for working capital and other general corporate purposes. Details as to the specific allocation of the Net Proceeds are disclosed in the Prospectus Supplement.

For further details regarding the Offering, please see the Company's press releases dated March 7, 2017 and March 8, 2017, the agency agreement dated March 10, 2017 and the Prospectus Supplement, copies of which are available under the Company's profile at <u>www.sedar.com</u>.

The outstanding Shares are listed on the Toronto Stock Exchange (the **TSX**") under the symbol "TMD". The TSX has conditionally approved the listing of the Common Shares issuable in connection with the Offering. Listing will be subject to the Company fulfilling the listing requirements of the TSX on or before June 9, 2017.

#### About Titan Medical Inc.

Titan Medical Inc. is a Canadian public company focused on research and development through to the planned commercialization of computer-assisted robotic surgical technologies for application in minimally invasive surgery ("MIS"). The Company is currently developing the SPORT Surgical System, a single-port robotic surgical system. The SPORT Surgical System is comprised of a surgeon-controlled patient cart that includes a 3D high definition vision system and multi-articulating instruments for performing MIS procedures, and a surgeon workstation that provides the surgeon with an advanced ergonomic interface to the patient cart and a 3D endoscopic view inside the patient's body during MIS procedures. With the SPORT Surgical System, the Company aims to pursue a broad set of surgical indications, including general abdominal, gynecologic and urologic procedures.

For more information, please visit the Company's website at www.titanmedicalinc.com.

#### Forward-Looking Statements

This press release contains "forward-looking statements" which reflect the current expectations of management of the Company, including with respect to the intended use of the Net Proceeds. Such statements include, but are not limited to, statements regarding receipt of applicable regulatory approvals, the anticipated Closing Date and the proposed use of the Net Proceeds. Wherever possible, words such as "may", "would", "could", "will", "anticipate", "believe", "plan", "expect", "intend", "estimate", "potential for" and similar expressions have been used to identify these forward-looking statements. These statements reflect management's current beliefs with respect to future events and are based on information currently available to management. Forward-looking statements involve significant risks, uncertainties and assumptions. Many factors could cause the Company's actual results, performance or achievements to be materially different from any future results, performance or achievements that may be expressed or implied by such forward-looking statements, including, without limitation, those listed in the "Risk Factors" section of the Company's Annual Information Form dated March 30, 2016 ( which maybe viewed at <u>www.sedar.com</u>). Should one or more of these risks or uncertainties materialize, or should assumptions underlying the forward-looking statements may vary materially from those expressed or implied by the forward-looking statements contained in this news release. These factors should be considered carefully and prospective investors should not place undue reliance on the forward-looking statements. Although the forward-looking statements contained in the news release are based upon what management currently believes to be reasonable assumptions, the Company cannot assure prospective investors that actual results, performance or achievements will be consistent with these forward-looking statements.

# U.S. Securities Law Caution

The securities described herein have not been, and will not be, registered under the United States Securities Act of 1933, as amended (the 'U.S. Securities Act"), or any state securities laws, and accordingly, may not be offered or sold to, or for the account or benefit of, persons in the United States or "U.S. persons," as such term is defined in Regulation S promulgated under the U.S. Securities Act ("U.S. Persons"), except in compliance with the registrationrequirements of the U.S. Securities Act and applicable state securities requirements or pursuant to exemptions therefrom. This press release does not constitute an offer to sell or a solicitation of an offer to buy any of the Company's securities to, or for the account or benefit of, persons in the United States or U.S. Persons.

CONTACT INFORMATION

EVC Group, Inc.

Amanda Prior Aprior@evcgroup.com

Michael Polyviou mpolyviou@evcgroup.com (646) 445-4800 Schedule "B"

[See Attached]

# TITAN MEDICAL.

170 University Avenue • Suite 1000 Toronto, Ontario, Canada M5H 3B3 • Tel: 416.548.7522 info@titanmedicalinc.com • www.titanmedicalic.com

#### Titan Medical Inc. Announces Closing of Public Offering

Toronto, ON – (Marketwired – March 16, 2017) – Titan Medical Inc. (the "Company") (TSX: TMD) (OTCQX: TITXF) is pleased to announce that it closed its previously announced public offering (the "Offering") earlier today pursuant to an agency agreement (the "Agency Agreement") dated March 10, 2017 between the Company and Bloom Burton Securities Inc. (the "Agent"). The Company sold 21,467,200 units (each, a "Unit") under the Offering at a price of CDN \$0.35 per Unit for gross proceeds of CDN \$7,513,520.

Each Unit is comprised of one common share of the Company (a "**Common Share**") and (i) one-half of one Common Share purchase warrant, each whole warrant exercisable for one Common Share, at a price of C\$0.40 for a period of two years following the closing of the Offering (the "**Closing**"), and (ii) one-half of one Common Share purchase warrant, each whole warrant exercisable for one Common Share, at a price of C\$0.50 for a period of four years following Closing. The Common Shares sold under the Offering will be listed and posted for trading on the Toronto Stock Exchange under the symbol TMD at the opening on March 16, 2017.

The Units were qualified for sale by way of a prospectus supplement dated March 10, 2017 to the Company's short form base shelf prospectus dated August 18, 2015 (together, the "**Prospectus**"), which has been filed in the Provinces of British Columbia, Alberta and Ontario.

The net proceeds of the Offering (the "Net Proceeds") will be used to fund continued development work in connection with the Company's SPORT<sup>M</sup> Surgical System, as well as for working capital and other general corporate purposes.

Roth Capital Partners acted as special selling group member in connection with the Offering.

For further details regarding the Offering, please see the Company's press releases dated March 7, 2017, March 8, 2017, and March 10, 2017, the Agency Agreement and the Prospectus, copies of which are available under the Company's profile at <u>www.sedar.com</u>.

#### **Related Party Transaction**

An aggregate of 630,914 Units were issued to insider of the Company under the Offering for gross proceeds of \$220,819. The insider subscriptions constitute a "related party transaction" pursuant to Multilateral Instrument 61-101 - Protection of Minority Security Holders in Special Transactions ("MI 61-101"). In completing the insider subscriptions, the Company relied on the exemptions from the formal valuation and minority shareholder approval requirements of MI 61-101 set forth in sections 5.5(a) and 5.7(a) of MI 61-101, as the aggregate value of the insider subscription does not exceed 25% of the market capitalization of the Company.

The Company did not file a material change report more than 21 days before the expected closing of the Offering due to the limited time between the launch of the Offering and the Closing.

### About Titan Medical Inc.

Titan Medical Inc. is a Canadian public company focused on research and development through to the planned commercialization of computer-assisted robotic surgical technologies for application in minimally invasive surgery ("MIS"). The Company is currently developing the SPORT Surgical System, a single-port robotic surgical system. The SPORT Surgical System is comprised of a surgeon-controlled patient cart that includes a 3D high definition vision system and multi-articulating instruments for performing MIS procedures, and a surgeon workstation that provides the surgeon with an advanced ergonomic interface to the patient cart and a 3D endoscopic view inside the patient's body during MIS procedures. With the SPORT Surgical System, the Company aims to pursue a broad set of surgical indications, including general abdominal, gynecologic and urologic procedures.

For more information, please visit the Company's website at www.titanmedicalinc.com.

#### **Forward-Looking Statements**

This press release contains "forward-looking statements" which reflect the current expectations of management of the Company. Such statements include, but are not limited to, statements regarding receipt of applicable regulatory approvals, the anticipated Closing Date and the proposed use of the Net Proceeds. Wherever possible, words such as "may", "would", "could", "will", "anticipate", "believe", "plan", "expect", "intend", "estimate", "potential for" and similar expressions have been used to identify these forward-looking statements. These statements reflect management's current beliefs with respect to future events and are based on information currently available to management. Forward-looking statements involve significant risks, uncertainties and assumptions. Many factors could cause the Company's actual results, performance or achievements to be materially different from any future results, performance or achievements that may be expressed or implied by such forward-looking statements, including, without limitation, those listed in the "Risk Factors" section of the Company's Annual Information Form dated March 30, 2016 (which may be viewed at <u>www.sedar.com</u>). Should one or more of these risks or uncertainties materialize, or should assumptions underlying the forward-looking statements prove incorrect, actual results, performance or achievements may vary materially from those expressed or implied by the forward-looking statements contained in this news release. These factors should be considered carefully and prospective investors should not place undue reliance on the forward-looking statements. Although the forward-looking statements contained in the news release are based upon what management currently believes to be reasonable assumptions, the Company cannot assure prospective investors that actual results, performance or achievements will be consistent with these forward-looking statements.

# U.S. Securities Law Caution

The securities described herein have not been, and will not be, registered under the United States Securities Act of 1933, as amended (the **'U.S. Securities Act**''), or any state securities laws, and accordingly, may not be offered or sold to, or for the account or benefit of, persons in the United States or "U.S. persons," as such term is defined in Regulation S promulgated under the U.S. Securities Act (**''U.S. Persons**''), except in compliance with the registration requirements of the U.S. Securities Act and applicable state securities requirements or pursuant to exemptions therefrom. This press release does not constitute an offer to sell or a solicitation of an offer to buy any of the Company's securities to, or for the account or benefit of, persons in the United States or U.S. Persons.

CONTACT INFORMATION

EVC Group, Inc.

Amanda Prior Aprior@evcgroup.com

Michael Polyviou mpolyviou@evcgroup.com (646) 445-4800

### Item 1 Name and Address of Company

Titan Medical Inc. (the **"Company"** or **"Titan"**) 170 University Avenue Suite 1000 Toronto, Ontario M5H 3B3

### Item 2 Date of Material Change

March 7, 2017 and March 8, 2017.

# Item 3 News Release

The press releases attached as Schedule "A" and Schedule "B" were disseminated through Marketwired on March 7, 2017 and March 8, 2017, respectively, with respect to the material changes.

# Item 4 Summary of Material Change

On March 7, 2017 the Company announced its intention to commence an offering of units (Units") by way of a prospectus supplement (the "Prospectus Supplement") to the Company's base shelf prospectus dated August 18, 2015, to be filed with securities regulators in Ontario, British Columbia and Alberta and on a private placement basis in the United States.

On March 8, 2017 the Company announced that Bloom Burton Securities Inc. had agreed to offer Units on a "best efforts" basis at a price of CDN\$0.35 per Unit.

| Item 5                                                                   | Full Description of Material Change                         |  |
|--------------------------------------------------------------------------|-------------------------------------------------------------|--|
| 5.1                                                                      | Full Description of Material Change                         |  |
| Please see the press releases attached as Schedule "A" and Schedule "B". |                                                             |  |
| 5.2                                                                      | Disclosure for Restructuring Transactions                   |  |
| Not applicable.                                                          |                                                             |  |
| Item 6                                                                   | Reliance on subsection 7.1(2) of National Instrument 51-102 |  |
| Not applicable.                                                          |                                                             |  |
| Item 7                                                                   | Omitted Information                                         |  |
| Not applicable.                                                          |                                                             |  |
|                                                                          |                                                             |  |

#### Item 8 Executive Officer

The following executive officer is knowledgeable about the material changes and may be contacted about this report:

Stephen Randall Chief Financial Officer (416) 548-7522 (ext. 152)

Email: stephen@titanmedicalinc.com Website: www.titanmedicalinc.com

# Item 9 Date of Report

March 16, 2017.

Schedule "A"

[See Attached]

# TITAN MEDICAL

170 University Avenue • Suite 1000 Toronto, Ontario, Canada M5H 3B3 • Tel: 416.548.7522 info@titanmedicalinc.com • www.titanmedicalic.com

#### TITAN MEDICAL INC. ANNOUNCES OVERNIGHT MARKETED EQUITY OFFERING

Toronto, ON – (Marketwired – March 7, 2017 – Titan Medical Inc. ("Titan" or the "Company") (TSX: TMD) (OTCQX: TITXF) announced today that it will undertake an overnight marketed public offering (the "Offering") of securities of the Company ("Securities"). The Offering will be undertaken by Bloom Burton Securities Inc., as the Company's agent in respect of the Offering, on a best efforts agency basis in the provinces of British Columbia, Alberta and Ontario pursuant to a prospectus supplement (the "Prospectus Supplement") to the Company's base shelf prospectus dated August 18, 2015 (together with the Prospectus Supplement, the **Prospectus**"), to be filed with securities regulators in Ontario, British Columbia and Alberta. The Securities may also be offered for sale in the United States through one or more United States registered broker-dealer(s) appointed by the Agent as sub-agent(s) pursuant to exemptions from the registration requirements of the U.S. Securities Act and applicable state laws. The number of Securities to be distributed, the price and other terms of the Offering will be determined in the context of the market with final terms to be determined at the time of pricing.

The Offering is subject to a number of conditions, including, without limitation, receipt of all regulatory approvals. The net proceeds of the Offering will be used to fund continued development work in connection with the Company's SPORT<sup>TM</sup> Surgical System, as well as for working capital and other general corporate purposes. Further details will be disclosed in the Prospectus Supplement.

#### About Titan Medical Inc.

Titan Medical Inc. is a Canadian public company focused on research and development through to the planned commercialization of computer-assisted robotic surgical technologies for application in minimally invasive surgery ("MIS"). The Company is currently developing the SPORT Surgical System, a single-port robotic surgical system. The SPORT Surgical System is comprised of a surgeon-controlled patient cart that includes a 3D high definition vision system and multi-articulating instruments for performing MIS procedures, and a surgeon workstation that provides the surgeon with an advanced ergonomic interface to the patient cart and a 3D endoscopic view inside the patient's body during MIS procedures. With the SPORT Surgical System, the Company aims to pursue a broad set of surgical indications, including general abdominal, gynecologic and urologic procedures.

For more information, please visit the Company's website at www.titanmedicalinc.com.

#### **Forward-Looking Statements**

This news release contains "forward-looking statements" which reflect the current expectations of management of the Company's future growth, results of operations, performance and business prospects and opportunities. Wherever possible, words such as "may", "would", "could", "will", "anticipate", "believe", "plan", "expect", "intend", "estimate", "potential for" and similar expressions have been used to identify these forward-looking statements. These statements, including with respect to the use of the net proceeds of the Offering, reflect management's current beliefs with respect to future events and are based on information currently available to management. Forward-looking statements involve significant risks, uncertainties and assumptions. Many factors could cause the Company's actual results, performance or achievements to be materially different from any future results, performance or achievements that may be expressed or implied by such forward-looking statements, including, without limitation, those listed in the "Risk Factors" section of the Company's Annual Information Form dated March 30, 2016 (which may be viewed at www.sedar.com). Should one or more of these risks or uncertainties materialize, or should assumptions underlying the forward looking statements prove incorrect, actual results, performance, or achievements may vary materially from those expressed or implied by the forward-looking statements. Although the forward-looking statements contained in the news release are based upon what management currently believes to be reasonable assumptions, the Company cannot assure prospective investors that actual results, performance or achievements with these forward-looking statements.

#### **U.S. Securities Law Caution**

The securities described herein have not been, and will not be, registered under the United States Securities Act of 1933, as amended (the "U.S. Securities Act"), or any state securities laws, and accordingly, may not be offered or sold to, or for the account or benefit of, persons in the United States or "U.S. persons," as such term is defined in Regulation S promulgated under the U.S. Securities Act ("U.S. Persons"), except in compliance with the registration requirements of the U.S. Securities Act and applicable state securities requirements or pursuant to exemptions therefrom. This press release does not constitute an offer to sell or a solicitation of an offer to buy any of the Company's securities to, or for the account or benefit of, persons in the United States or U.S. Persons.

### Neither TSX nor its Regulation Services Provider (as that term is defined in the policies of the TSX) accepts responsibility for the adequacy or accuracy of this release.

#### CONTACT INFORMATION

EVC Group, Inc.

Amanda Prior Aprior@evcgroup.com Michael Polyviou mpolyviou@evcgroup.com (646) 445-4800 Schedule "B"

[See Attached]

# TITAN MEDICAL.

170 University Avenue•Suite 1000 Toronto, Ontario, Canada M5H 3B3 •Tel: 416.548.7522 info@titanmedicalinc.com • www.titanmedicalic.com

#### Titan Medical Inc. Announces Pricing of Overnight Marketed Equity Offering

Toronto, ON – (Marketwired – March 8, 2017) – Titan Medical Inc. ("Titan" or the "Company") (TSX: TMD) (OTCQX: TITXF) is pleased to announce today that it has priced its previously announced overnight marketed offering of equity securities for up to US\$5,600,000 (approximately C\$7,500,000) (the "Offering"). Pursuant to the Offering, Titan will issue units of the Company ("Units") at a price of C\$0.35 per Unit. Each Unit is comprised of one common share of the Company (a Common Share") and (i) a ½ common share purchase warrant, each whole warrant (a "2019 Warrant") exercisable for one Common Share, at a price of C\$0.40 for a period of two years following the closing of the Offering (the "Closing"), and (ii) a ½ common share purchase warrant, each whole warrant, each whole warrant, each whole warrant (a "2019 Warrant") exercisable for one Common Share, at a price of C\$0.40 for a period of two years following the closing of the Offering (the "Closing"), and (ii) a ½ common share purchase warrant, each whole warrant (a "2019 Warrant") exercisable for one Common Share, at a price of C\$0.50 for a period of four years following Closing.

The Offering will be undertaken on a best efforts basis pursuant to the terms and conditions of an agency agreement to be entered into between the Company and Bloom Burton Securities Inc. (the "Agent"). In connection with the Offering, the Agent will be paid a cash commission equal to 7.0% of the gross proceeds of the Offering and it will be issued that number of non-transferable broker warrants exercisable for Common Shares equal to 7.0% of the number of Units sold in the Offering (in each case excluding any Units sold to certain excluded subscribers). The Company will also grant the Agent an over-allotment option to offer for sale that number of additional Units and/or Warrants equal to 15% of the Units sold under the Offering, subject to the maximum number of additional Units and/or Warrants issuable under Titan's base shelf prospectus dated August 18, 2015, exercisable at any time and from time to time on or before the date of Closing ( the "Closing Date") or for a period of up to 30 days following the Closing Date.

The Company expects the Closing to occur on or about March 16, 2017. The Offering is subject to the satisfaction of certain customary closing conditions, including, but not limited to, the receipt of all necessary regulatory and stock exchange approvals (including, for certainty, the approval of the Toronto Stock Exchange (the "TSX")). The Offering is to be effected in each of the provinces of British Columbia, Alberta and Ontario by way of a prospectus supplement (the "Prospectus Supplement") to Titan's base shelf prospectus dated August 18, 2015. In addition, the Units may also be offered for sale in the United States, by or through a United States registered broker-dealer appointed by the Agent as sub-agent, and in certain offshore jurisdictions, in each case under available exemptions from the prospectus and registration requirements of applicable securities laws.

The net proceeds of the Offering (the 'Net Proceeds') will be used to fund continued development work in connection with the Company's SPORT<sup>M</sup> Surgical System, as well as for working capital and other general corporate purposes. Details as to the specific allocation of the Net Proceeds will be disclosed in the Prospectus Supplement.

The Common Shares are listed on the TSX under the symbol "TMD". An application will be made to list the Common Shares issuable under the Offering for trading on the TSX. Listing will be subject to the Company fulfilling all of the requirements of the TSX.

#### About Titan Medical Inc.

Titan Medical Inc. is a Canadian public company focused on the design and development of a robotic surgical system for application in minimally invasive surgery (**MIS**"). The Company's SPORT Surgical System, currently under development, includes a surgeon-controlled robotic platform that includes a 3D high-definition vision system and instruments for performing MIS procedures. The surgical system also includes a surgeon workstation that provides the surgeon with an advanced ergonomic interface to the robotic platform for controlling the instruments and provides a 3D high-definition endoscopic view of inside a patient's body. The SPORT Surgical System is designed to enable surgeons to perform a broad set of surgical procedures for general abdominal, gynecological and urologic indications. For more information, visit the Company's website at <u>www.titanmedicalinc.com</u>.

#### Forward-Looking Statements

This press release contains "forward-looking statements" which reflect the current expectations of management of the Company, including with respect to the intended use of the Net Proceeds. Such statements include, but are not limited to, statements regarding receipt of applicable regulatory approvals, the anticipated Closing Date and the proposed use of proceeds. Wherever possible, words such as "may", "would", "could", "will", "anticipate", "believe", "plan", "expect", "intend", "estimate", "potential for" and similar expressions have been used to identify these forward-looking statements. These statements reflect management's current beliefs with respect to future events and are based on information currently available to management. Forward-looking statements involve significant risks, uncertainties and assumptions. Many factors could cause the Company's actual results, performance or achievements to be materially different from any future results, performance or achievements to be materially different from any future results, performance or achievements and marks or implied by such forward-looking statements, including, without limitation, those listed in the "Risk Factors" section of the Company's Annual Information Form dated March 30, 2016 (which may be viewed at <u>www.sedar.com</u>). Should one or more of these risks or uncertainties materialize, or should assumptions underlying the forward looking statements prove incorrect, actual results, performance or achievements may vary materially from those expressed or implied by the forward-looking statements. Although the forward-looking statements currently believes to be reasonable assumptions, the Company cannot assure prospective investors that actual results, performance or achievements will be consistent with these forward-looking statements.

# U.S. Securities Law Caution

The securities described herein have not been, and will not be, registered under the United States Securities Act of 1933, as amended (the **'U.S. Securities Act**''), or any state securities laws, and accordingly, may not be offered or sold to, or for the account or benefit of, persons in the United States or "U.S. persons," as such term is defined in Regulation S promulgated under the U.S. Securities Act (**''U.S. Persons**''), except in compliance with the registration requirements of the U.S. Securities Act and applicable state securities requirements or pursuant to exemptions therefrom. This press release does not constitute an offer to sell or a solicitation of an offer to buy any of the Company's securities to, or for the account or benefit of, persons in the United States or U.S. Persons.

CONTACT INFORMATION

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#### Titan Medical Schedules Conference Call to Review Fourth Quarter Financial Results and Recent Corporate Developments

TORONTO, ON-(March 17, 2017) - Titan Medical Inc. (TSX: TMD) (OTCQX: TITXF), a medical device company focused on the design, development and commercialization of a robotic surgical system for application in minimally invasive surgery (MIS), today announced that it will report its financial results and MD&A for the fourth quarter ended December 31, 2016, after the markets close on Tuesday, March 21, 2017. Management led by David McNally, President and CEO, will host a conference call to discuss these results and recent corporate developments at 4:30 PM ET on Thursday, March 23<sup>rd</sup>. Investors within Canada and the United States interested in participating are invited to call 800-274-0251. All other international participants can use the dial-in number +1 416-642-5209.

During the call, management will offer remarks and take live questions from analysts and professional investors. Others are encouraged to submit questions prior to or during the call to <u>aprior@evcgroup.com</u>.

A replay of the event will be available for two weeks following the conclusion of the call. To access the replay, callers in Canada and the United States can call 888-203-1112 and reference the Replay Access Code: 5784933. All callers outside Canada and the United States can dial +1 647-436-0148, using the same Replay Access Code. To access the webcast, please visit <u>http://www.titanmedicalinc.com/</u> and select 'Investors.'

#### About Titan Medical Inc.

Titan Medical Inc. is a Canadian public company focused on research and development through to the planned commercialization of computer-assisted robotic surgical technologies for application in minimally invasive surgery ("MIS"). The Company is currently developing the SPORT Surgical System, a single-port robotic surgical system. The SPORT Surgical System is comprised of a surgeon-controlled patient cart that includes a 3D high definition vision system and multi-articulating instruments for performing MIS procedures, and a surgeon workstation that provides the surgeon with an advanced ergonomic interface to the patient cart and a 3D endoscopic view inside the patient's body during MIS procedures. With the SPORT Surgical System, the Company aims to pursue a broad set of surgical indications, including general abdominal, gynecologic and urologic procedures.

For more information, please visit the Company's website at www.titanmedicalinc.com.

#### Forward-Looking Statements

This press release contains "forward-looking statements" which reflect the current expectations of management of the Company. Such statements include, but are not limited to, statements regarding receipt of applicable regulatory approvals, the anticipated Closing Date and the proposed use of the Net Proceeds. Wherever possible, words such as "may", "would", "could", "will", "anticipate", "believe", "plan", "expect", "intend", "estimate", "potential for" and similar expressions have been used to identify these forward-looking statements. These statements reflect management's current beliefs with respect to future events and are based on information currently available to management. Forward-looking statements involve significant risks, uncertainties and assumptions. Many factors could cause the Company's actual results, performance or achievements to be materially different from any future results, performance or achievements that may be expressed or implied by such forward-looking statements, including, without limitation, those listed in the "Risk Factors" section of the Company's Annual Information Form dated March 30, 2016 (which may be viewed at <u>www.sedar.com</u>). Should one or more of these risks or uncertainties materialize, or should assumptions underlying the forward-looking statements prove incorrect, actual results, performance or achievements may vary materially from those expressed or implied by the forward-looking statements and prove incorrect, actual results, performance or achievements may vary materially from those expressed or implied by the forward-looking statements. Although the forward-looking statements contained in the news release are based upon what management currently believes to be reasonable assumptions, the Company cannot assure prospective investors that actual results, performance or achievements will be consistent with these forward-looking statements.

#### CONTACT INFORMATION

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Michael Polyviou mpolyviou@evcgroup.com (646) 445-4800 TITAN MEDICAL.

#### 170 University Avenue • Suite 1000 Toronto, Ontario, Canada M5H 3B3 •Tel: 416.548.7522 info@titanmedicalinc.com • www.titanmedicalic.com

#### Titan Medical Reports Financial Results for Fiscal Year Ended December 31, 2016

TORONTO, ON, March 21, 2017 - Titan Medical Inc. (TSX: TMD) (OTCQX: TITXF), a medical device company focused on the design, development and commercialization of a robotic surgical system for application in minimally invasive surgery (MIS), today announced financial results for the fourth quarter and full year ended December 31, 2016. All financial results are reported in U.S. dollars, unless otherwise stated.

#### 2016 and 2017 Year-to-date Highlights

- Effective January 1, 2017, David J. McNally was appointed Chief Executive Officer of the Company, succeeding John Barker, and also was appointed as a Director of the Company.
- Effective February 6, 2017, Perry Genova, PhD., was appointed Vice President of Research and Development.
- On August 8, 2016, the Company announced that it exhibited its SPORT<sup>TM</sup> Surgical System at the World Robotics Gynecology Congress in New York, August 5th and 6th.
- On August 24, 2016 Titan announced that it had extended the rights granted to Longtai Medical Inc. to negotiate an exclusive distribution agreement. The parties then agreed to modify their previous three-month extension to monthly progress reviews.
- On September 6, 2016 Titan announced that Dr. Rafael Sanchez-Salas presented an overview of the SPORT Surgical System, at the 13<sup>th</sup> meeting of the European Association of Urology Robotic Urology Section in Milan Italy on September 14 16.

In addition to the above:

- Effective August 31, 2016, Dennis Fowler, MD, Executive VP, Clinical and Regulatory Affairs, resigned from the Company.
- Effective October 4, 2016, John Hargrove resigned as Chief Executive Officer, Director Martin Bernholtz was appointed Chairman of the Board, and John Barker was appointed Interim Chief Executive Officer of the Company.
- Effective January 9, 2017, Dr. Reiza Rayman, President, resigned from the Company. David J. McNally assumed the role of President of Titan Medical Inc.

David McNally, President and Chief Executive Officer, stated, "2016 was a year of extraordinary challenges and change for Titan Medical. However, the Company continued to gain surgeon support for its unique single-port robotic surgical system while proceeding with development. I am grateful to the board of directors for my appointment as President and CEO in January of 2017, and enthusiastic about our future. Already in 2017, we have strengthened the management team, expanded our world-class surgeon advisory board, renewed focus on streamlining the pathway to commercialization, and established meaningful product development milestones and timelines. The successful capital raises of 2016, followed by that which we announced last Thursday March 16<sup>th</sup>, set the stage for the Company to proceed toward the goal of capitalizing on the multi-billion dollar global surgical robotics market opportunity."

Mr. McNally continued, "During 2017, our team will remain focused on executing design engineering and pre-clinical validation work in preparation for our planned regulatory filings in 2018. We continue to aim for FDA 510(k) application and CE Mark submission by the end of 2018. We have updated our milestones accordingly, and we look forward to communicating our progress to our shareholders on an ongoing basis. In addition, we will be seeking additional capital in order to fully realize the potential of the Company and maximize the opportunity to build shareholder value."

For the fourth quarter, Titan incurred \$1,331,811 million in operating expenses, versus \$834,456 during the prior year period, and a loss from operations prior to interest income and fair value reevaluation of warrants of \$2,336,821 million versus \$13,840,124 during the fourth quarter of 2015. Net and comprehensive loss for the fourth quarter was \$2,008,365, or \$0.01 per share as compared with \$13,136,604 or \$0.12 per share during the fourth quarter of 2015.

For the full year, Titan incurred operating expenses of \$27,805,093 million versus \$42,644,794 million during 2015. Research and development expenses for the full year were \$22,577,885 compared to \$38,213,332 for the year ended December 31, 2015. Net and comprehensive loss for 2016 was \$23,323,496 compared to a net and comprehensive loss of \$41,413,281 for 2015.

The Company completed 2016 with cash, cash equivalents and short-term investments of \$4,339,911. On March 17, 2017, the Company announced the closing of an equity raise netting \$5.1 million.

The audited financial statements and management's discussion and analysis for the fiscal year ended December 31, 2016 may be viewed on SEDAR atwww.sedar.com.

Management led by David McNally, President & CEO, will host a conference call to discuss these results and recent corporate developments at 4:30 PM ET on March  $23^d$ . Investors within Canada and the United States interested in participating are invited to call 800-274-0251. All other international participants can use the dial-in number +1 416-642-5209. During the call management, will offer remarks and take live questions from analysts and professional investors. Others are encouraged to submit questions prior to or during the call to <u>aprior@evcgroup.com</u>.

A replay of the event will be available for two weeks following the conclusion of the call. To access the replay, callers in Canada and the United States can call 888-203-1112 and reference the Replay Access Code: 5784933. All callers outside Canada and the United States can dial +1 647-436-0148, using the same Replay Access Code. To access the webcast, please visit http://www.titanmedicalinc.com/and select 'Investors.'

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For more information, please visit the Company's website atwww.titanmedicalinc.com.

#### Forward-Looking Statements

This press release contains "forward-looking statements" which reflect the current expectations of management of the Company. Such statements include, but are not limited to, statements regarding receipt of applicable regulatory approvals, the anticipated Closing Date and the proposed use of the Net Proceeds. Wherever possible, words such as "may", "would", "could", "will", "anticipate", "believe", "plan", "expect", "intend", "estimate", "potential for" and similar expressions have been used to identify these forward-looking statements. These statements reflect management's current beliefs with respect to future events and are based on information currently available to management. Forward-looking statements involve significant risks, uncertainties and assumptions. Many factors could cause the Company's actual results, performance or achievements to be materially different from any future results, performance or achievements that may be expressed or implied by such forward-looking statements, including, without limitation, those listed in the "Risk Factors" section of the Company's Annual Information Form dated March 30, 2016 (which may be viewed at <u>www.sedar.com</u>). Should one or more of these risks or uncertainties materialize, or should assumptions underlying the forward-looking statements prove incorrect, actual results, performance or achievements may vary materially from those expressed or implied by the forward-looking statements contained in this news release. These factors should be considered carefully and prospective investors should not place undue reliance on the forward-looking statements. Although the forward-looking statements contained in the news release are based upon what management currently believes to be reasonable assumptions, the Company cannot assure prospective investors that actual results, performance or achievements will be consistent with these forward-looking statements.

#### CONTACT INFORMATION

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#### FORM 52-109F1 CERTIFICATION OF ANNUAL FILINGS FULL CERTIFICATE

I, David McNally, President and Chief Executive Officer, Titan Medical Inc., certify the following:

1. *Review:* I have reviewed the AIF, if any, annual financial statements and annual MD&A, including, for greater certainty, all documents and information that are incorporated by reference in the AIF (together, the "annual filings") of Titan Medical Inc. (the "issuer") for the financial year ended December 31, 2016.

2. No misrepresentations: Based on my knowledge, having exercised reasonable diligence, the annual filings do not contain any untrue statement of a material fact or omit to state a material fact required to be stated or that is necessary to make a statement not misleading in light of the circumstances under which it was made, for the period covered by the annual filings.

3. *Fair presentation:* Based on my knowledge, having exercised reasonable diligence, the annual financial statements together with the other financial information included in the annual filings fairly present in all material respects the financial condition, results of operations and cash flows of the issuer, as of the date of and for the periods presented in the annual filings.

4. *Responsibility:* The issuer's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (DC&P) and internal control over financial reporting (ICFR), as those terms are defined in National Instrument 52-109 *Certification of Disclosure in Issuers' Annual and Interim Filings*, for the issuer.

5. Design: Subject to the limitations, if any, described in paragraphs 5.2 and 5.3, the issuer's other certifying officer(s) and I have, as at the financial year end

(a) designed DC&P, or caused it to be designed under our supervision, to provide reasonable assurance that

(i) material information relating to the issuer is made known to us by others, particularly during the period in which the annual filings are being prepared; and

(ii) information required to be disclosed by the issuer in its annual filings, interim filings or other reports filed or submitted by it under securities legislation is recorded, processed, summarized and reported within the time periods specified in securities legislation; and

(b) designed ICFR, or caused it to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with the issuer's GAAP.

5.1 Control framework: The control framework the issuer's other certifying officer(s) and I used to design the issuer's ICFR is Integrated Framework (COSO).

5.2 ICFR – material weakness relating to design: N/A
 (a) a description of the material weakness;

5.3 Limitation on scope of design: N/A

6. Evaluation: The issuer's other certifying officer(s) and I have

(a) evaluated, or caused to be evaluated under our supervision, the effectiveness of the issuer's DC&P at the financial year end and the issuer has disclosed in its annual MD&A our conclusions about the effectiveness of DC&P at the financial year end based on that evaluation; and (b) evaluated, or caused to be evaluated under our supervision, the effectiveness of the issuer's ICFR at the financial year end and the issuer has disclosed in its annual MD&A

 (i) our conclusions about the effectiveness of ICFR at the financial year end based on that evaluation; and

(ii) for each material weakness relating to operation existing at the financial year end

(A) a description of the material weakness; N/A

(B) the impact of the material weakness on the issuer's financial reporting and its ICFR; N/A and

(C) the issuer's current plans, if any, or any actions already undertaken, for remediating the material weakness. N/A

7. *Reporting changes in ICFR:* The issuer has disclosed in its annual MD&A any change in the issuer's ICFR that occurred during the period beginning on January 1, 2016 and ended December 31, 2016 that has materially affected, or is reasonably likely to materially affect, the issuer's ICFR.

8. *Reporting to the issuer's auditors and board of directors or audit committee:* The issuer's other certifying officer(s) and I have disclosed, based on our most recent evaluation of ICFR, to the issuer's auditors, and the board of directors or the audit committee of the board of directors any fraud that involves management or other employees who have a significant role in the issuer's ICFR.

Date: March 21, 2017

1-mm David McNally

President and Chief Executive Officer

#### FORM 52-109F1 CERTIFICATION OF ANNUAL FILINGS FULL CERTIFICATE

# I, Stephen Randall, Chief Financial Officer, Titan Medical Inc., certify the following:

1. *Review:* I have reviewed the AIF, if any, annual financial statements and annual MD&A, including, for greater certainty, all documents and information that are incorporated by reference in the AIF (together, the "annual filings") of **Titan Medical Inc.** (the "issuer") for the financial year ended **December 31, 2016**.

2. No misrepresentations: Based on my knowledge, having exercised reasonable diligence, the annual filings do not contain any untrue statement of a material fact or omit to state a material fact required to be stated or that is necessary to make a statement not misleading in light of the circumstances under which it was made, for the period covered by the annual filings.

3. Fair presentation: Based on my knowledge, having exercised reasonable diligence, the annual financial statements together with the other financial information included in the annual filings fairly present in all material respects the financial condition, results of operations and cash flows of the issuer, as of the date of and for the periods presented in the annual filings.

4. Responsibility: The issuer's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (DC&P) and internal control over financial reporting (ICFR), as those terms are defined in National Instrument 52-109 Certification of Disclosure in Issuers' Annual and Interim Filings, for the issuer.

5. Design: Subject to the limitations, if any, described in paragraphs 5.2 and 5.3, the issuer's other certifying officer(s) and I have, as at the financial year end

(a) designed DC&P, or caused it to be designed under our supervision, to provide reasonable assurance that

(i) material information relating to the issuer is made known to us by others, particularly during the period in which the annual filings are being prepared; and

(ii) information required to be disclosed by the issuer in its annual filings, interim filings or other reports filed or submitted by it under securities legislation is recorded, processed, summarized and reported within the time periods specified in securities legislation; and

(b) designed ICFR, or caused it to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with the issuer's GAAP.

5.1 Control framework: The control framework the issuer's other certifying officer(s) and I used to design the issuer's ICFR is Integrated Framework (COSO).

5.2 ICFR - material weakness relating to design: N/A

5.3 Limitation on scope of design: N/A

6. Evaluation: The issuer's other certifying officer(s) and I have

(a) evaluated, or caused to be evaluated under our supervision, the effectiveness of the issuer's DC&P at the financial year end and the issuer has disclosed in its annual MD&A our conclusions about the effectiveness of DC&P at the financial year end based on that evaluation; and (b) evaluated, or caused to be evaluated under our supervision, the effectiveness of the issuer's ICFR at the financial year end and the issuer has disclosed in its annual MD&A

 (i) our conclusions about the effectiveness of ICFR at the financial year end based on that evaluation; and

(ii) for each material weakness relating to operation existing at the financial year end

(A) a description of the material weakness; N/A

(B) the impact of the material weakness on the issuer's financial reporting and its ICFR;  $N/A\,$  and

(C) the issuer's current plans, if any, or any actions already undertaken, for remediating the material weakness. N/A

7. *Reporting changes in ICFR:* The issuer has disclosed in its annual MD&A any change in the issuer's ICFR that occurred during the period beginning on **January 1, 2016 and ended December 31, 2016** that has materially affected, or is reasonably likely to materially affect, the issuer's ICFR.

8. Reporting to the issuer's auditors and board of directors or audit committee: The issuer's other certifying officer(s) and I have disclosed, based on our most recent evaluation of ICFR, to the issuer's auditors, and the board of directors or the audit committee of the board of directors any fraud that involves management or other employees who have a significant role in the issuer's ICFR.

Date: March 21/ 2017

Stephen Randall Chief Financial Officer

#### TITAN MEDICAL INC.

#### MANAGEMENT'S DISCUSSION AND ANALYSIS

#### FOR THE YEAR ENDED DECEMBER 31, 2016

# (IN UNITED STATES DOLLARS)

This Management's Discussion and Analysis ("MD&A") is dated March 21, 2017.

This MD&A provides a review of the performance of Titan Medical Inc. ("Titan" or the "Company") and should be read in conjunction with its audited financial statements for the year ended December 31, 2016 (and the notes thereto) ("Financial Statements"). The Financial Statements have been prepared in accordance with International Financial Reporting Standards ("IFRS"). All financial figures are in United States Dollars except where otherwise noted.

Additional information in respect of the Company, including the Company's most recent annual information form, can be found under the Company's profile at www.sedar.com.

#### Internal Control over Financial Reporting

During the year ended December 31, 2016, no changes were made to the Company's internal control over financial reporting that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

#### Forward-Looking Statements

This discussion includes certain statements that may be deemed "forward-looking statements". All statements in this discussion other than statements of historical facts that address future events, developments or transactions that the Company expects, are forward-looking statements. These forward-looking statements are made as of the date of this MD&A. Forward-looking statements are frequently, but not always, identified by words such as "expects", "expected", "expectation", "anticipates", "believes", "intends", "estimates", "predicts", "potential", "targeted", "plans", "possible", "milestones", "objectives" and similar expressions, or statements that events, conditions or results "will", "may", "could", or "should" occur or be achieved. Forward-looking statements that appear in this MD&A include: the Company is committed to developing its robotic surgical system with the objective of substantially improving upon minimally invasive surgery; the Company aims to pursue a broad set of surgical indications for the SPORT Surgical System, including general abdominal, gynecologic and urologic procedures; the design of the surgical system is intended to allow for the system to be adapted to the needs of the surgeon; the SPORT Surgical System patient cart is being developed to deliver interactive multi-articulating instruments and a 3D high definition vision system into a patient's abdominal body cavity through a single access port; the Company continues to explore in-licensing opportunities for technologies that may be used in conjunction with the Company's robotic surgical system; the Company plans to develop a robust training curriculum and post-training assessment tools for surgeons and surgical teams; the proposed training curriculum will likely include cognitive pre-training, psychomotor skills training, surgery simulations, live animal and human cadaver lab training, surgical team training, troubleshooting and an overview of safety; post-training assessment will include validation of the effectiveness of those assessment tools; the Company anticipates expanding its patent portfolio by filing patent applications as it progresses in the development of robotic surgical technologies and by acquiring or licensing suitable technologies; the Company's current plan is to focus on the development and commercialization of the SPORT Surgical System at estimated incremental costs and according to the timeline as set forth in the table below; over the course of the next twelve months, Titan's objectives include continuing to significantly advance the development of its robotic surgical system through ongoing human factors and usability trials including the build of engineering verification (EV) units to be used for a number of planned preclinical studies; the Company intends to utilize a direct sales force and/or distribution partner(s) to initiate marketing the SPORT Surgical System to hospitals; the continued development and commercialization of the SPORT Surgical System; the Company has not deviated from its plan to use the Net Proceeds towards the ongoing development and commercialization of its SPORT Surgical System and general working capital purposes; Titan will continue its pursuit of key strategic relationships, carrying on efforts to secure its intellectual property through the patent and licensing process; Longtai Medical Inc. will concurrently with the signing of the Distributorship Agreement (as defined herein), subscribe for and purchase an additional US\$4,000,000 worth of common shares; if the Distributorship Agreement is signed and the second US\$4,000,000 private placement is completed, Titan will retain US\$1,400,000 of the Distributorship Deposit (as defined herein) and repay US\$600,000 to Longtai.

Although the Company believes the expectations expressed in such forward-looking statements are based on reasonable assumptions, such statements are not guarantees of future performance and actual results or developments may differ materially from those in the forward-looking statements. Forward-looking statements are statements about the future and are inherently uncertain, and actual results of the Company or other future events or conditions may differ materially from those reflected in the forward-looking statements due to a variety of risks, uncertainties and other factors, such as current global financial conditions, unfavorable competitive market conditions, dependence on key personnel, conflicts of interest, the Company's ability to obtain additional financing, strategic alliances, uncertainty as to product development and commercialization milestones, inability to achieve product cost targets, results of operations, competition, rapidly changing markets, uncertain market or uncertain acceptance of the Company's technology, technological advancements, intellectual property protection and infringement, ability to license other intellectual property rights of others, insurance and uninsured risks, product and services not completely developed, government regulation, changes in government policy, changes in accounting and tax rules, contingent liabilities, manufacturing risks, product defect risk, profitability, supplier risk, including supplier concentration, history of losses, stock price volatility, future share sales, limited operating history, fluctuating financial results and currency fluctuations. Please also refer to the risk factors set forth starting on page 9 of the Company's Annual Information Form for the 2015 fiscal year, available on SEDAR at www.sedar.com, which are expressly incorporated by reference into the MD&A.

There may be other factors that cause actions, events or results not to be as anticipated, estimated or intended. Other than as specifically required by law, the Company undertakes no obligation to update any forward-looking statement to reflect events or circumstances after the date on which such statement is made, or to reflect the occurrence of unanticipated events, whether as a result of new information, future events or results or otherwise. Investors are cautioned that any such statements are not guarantees of future performance and that actual results or developments may differ materially from those projected in the forward-looking statements. Accordingly, investors should not place undue reliance on forward-looking statements.

#### History and Business

The Company is incorporated under the Business Corporations Act (Ontario). The Company was formed by way of amalgamation under the Business Corporations Act (Ontario) on July 28, 2008.

The address of the Company's corporate office and its principal place of business is 170 University Avenue, Suite 1000, Toronto, Canada M5H 3B3.

Titan does not have any subsidiaries.

The Company is committed to developing its robotic surgical system for use in connection with minimally invasive surgery ("MIS"). From inception, the Company has focused on research and development of its robotic surgical technology and building its intellectual property portfolio, trade secrets and scientific and technical knowledge base.

#### **Overall Performance**

Titan Medical Inc. is a pre-revenue development stage company. During the year ended December 31, 2016 the Company raised, over the course of three offerings, \$30,757,639 (\$27,876,145 net of agents' commissions and other offering expenses). Titan closed the year with cash and cash equivalents of \$4,339,911 and working capital of \$2,366,832, excluding warrant liability.

During the year, the Company generated a net loss of \$23,323,496 and material expenses included research and development costs of \$22,577,885, foreign exchange loss of \$277,303, general and administrative costs of \$4,949,905 and a gain on change in fair value of warrants of \$4,950,013.

The Company's business is focused on research and development through to the commercialization of computer-assisted robotic surgical technologies for application in MIS. The Company is presently developing a single-port robotic surgical system, the SPORT Surgical System. The SPORT Surgical System is comprised of a surgeon-controlled patient cart that includes a 3D high definition vision system and multi-articulating instruments for performing surgical procedures, and a surgeon workstation that provides the surgeon with an advanced ergonomic interface to the patient cart and a 3D endoscopic view inside the patient's body during MIS procedures.

Development of the SPORT Surgical System has proceeded in response to "voice of customer" feedback, consultation with medical technology development firms and input from the Company's Surgeon Advisory Board comprised of key opinion leaders in targeted fields. This has allowed the Company to design a robotic surgical system that is intended to include the traditional advantages of robotic surgery, including tele-operation, 3D stereoscopic imaging and restoration of instinctive control, as well as new and enhanced features including an advanced surgeon workstation incorporating a 3D high definition display providing a more ergonomically friendly user interface and a patient cart with improved instrument dexterity. Overall, the design of the surgical system is intended to allow for the system to be adapted to the needs of the surgeon, rather than the surgeon having to adapt to the system. The Company aims to pursue a broad set of surgical indications for the SPORT Surgical System, including general abdominal, gynecologic and urologic procedures.

In addition to the in-house led development of robotic surgical technologies, the Company continues to explore in-licensing opportunities for technologies that may be used in conjunction with the Company's surgical system under development. In 2012, the Company entered into an exclusive license agreement with The Trustees of Columbia University for a robotic surgical technology for use in single-port surgery. The Company has exclusive license rights for the development and commercialization of the licensed technology, providing a basis for the development of the SPORT Surgical System.

The SPORT Surgical System patient cart is being developed to deliver interactive multi-articulating instruments and a 3D high definition vision system into a patient's abdominal body cavity through a single access port. The design of the patient cart includes an insertion tube of approximately 19 millimeter (mm) diameter, capable of insertion into the patient's body cavity through a skin incision of approximately 25 mm. The insertion tube includes a collapsible distal end portion incorporating a 3D high definition camera module that once inserted, is configured to deploy into a working configuration wherein the camera module and multi-articulating instruments can be controlled by a surgeon via the workstation. The reusable multi-articulating, snake-like instruments are designed to couple with sterile detachable single patient use robotic end effectors that would provide first use quality in every case and eliminate the reprocessing of the complete instrument. The use of reposable (re-usable for a specific number of uses) robotic instruments and single patient use end effectors is intended to minimize the cost per procedure. The patient cart is also designed to include a mast, a boom and wheels for optimal configurability for a variety of surgical indications and the ability to be maneuvered within the operating room, or redeployed within hospitals and surgical centers, where applicable.

As part of the development of the SPORT Surgical System, the Company plans to develop a robust training curriculum and post-training assessment tools for surgeons and surgical teams. The proposed training curriculum will likely include cognitive pre-training, psychomotor skills training, surgery simulations, live animal and human cadaver lab training, surgical team training, troubleshooting and an overview of safety. Post-training assessment will include validation of the effectiveness of those assessment tools.

The Company continuously evaluates its technologies under development for intellectual property protection through a combination of trade secrets and patent application filings. As of December 31, 2016, the Company had ownership or exclusive rights to 14 patents and 32 patent applications filed with various patent offices. The Company anticipates expanding its patent portfolio by filing patent applications as it progresses in the development of robotic surgical technologies and by acquiring and/or licensing suitable technologies. The Company previously entered into exclusive license agreements with several organizations including the Trustees of Columbia University. The agreement with Columbia University provides the company with certain rights for the development and commercialization of robotic surgical technology for use in single port surgery, providing a basis for the development of the SPORT Surgical System.

As part of its development and commercialization efforts, the Company has established certain milestones that it uses to assess its progress toward developing commercially viable robotic surgical technologies. These milestones relate to technology and design advancements as well as to targeted dates for pre-clinical testing and completion of regulatory submissions. To assess progress, the Company regularly tests and evaluates its technology. If such evaluations indicate technical defects or failure to meet cost or performance goals, the Company's commercialization schedule could be delayed and potential purchasers of its initial commercial systems may decline to purchase them or may choose to purchase alternative technologies.

Among other things, the future success of the Company is substantially dependent on its continued research and development program including the ongoing support of outsourced research and development suppliers. In addition to being capital intensive, research and development activities relating to sophisticated technologies that the Company develops are inherently uncertain as to future success and the achievement of desired results. If delays or problems occur during the Company's ongoing research and development activities, important financial and human resources may need to be diverted toward resolving such delays or problems. Further, there is a material risk that the Company's research and development activities may not result in a functional, commercially viable product or one that is approved by regulatory authorities.

The Company completed the build of two engineering verification ("EV") units in the fourth quarter of 2015. The Company had previously announced plans to build first-inhuman units in the first quarter of 2016 after the completed build of the two EV units. However, due to the revision of the development path, the first-in-human units were repurposed as EV units and were completed during the first quarter of 2016. The EV units incorporate substantially all of the previous design and engineering work completed on the SPORT Surgical System and may be used for pre-clinical live animal and human cadaver studies. The live animal and human cadaver studies are expected to provide comprehensive and high quality information to have a positive contribution towards anticipated regulatory submissions to the United States Food and Drug Administration ("FDA") and European regulatory authorities for the CE Mark.

The Company initiated human factor and usability evaluations for the SPORT Surgical System during the first half of 2016. Several evaluation sessions were performed with participation by clinical personnel from independent hospitals in which opportunities for improvement in system setup, performance, and instrument reprocessing were identified.

Please also see the discussion below under the heading, "Development Objectives", for additional information concerning development related activities that occurred in 2016.

# Selected Annual Information

The following table summarizes selected financial data reported by the Company for the years ended December 31, 2016, 2015 and 2014 in accordance with International Financial Reporting Standards ("IFRS"). The information set forth should be read in conjunction with the respective audited financial statements. All amounts shown are in U.S. dollars which is the company's functional and presentation currency.

|                                         | 2016         | 2015         | 2014         |
|-----------------------------------------|--------------|--------------|--------------|
| Net sales                               | -            | -            | -            |
| Net and comprehensive loss for the year | \$23,323,496 | \$41,413,281 | \$13,450,261 |
| Basic & diluted loss per share          | \$0.16       | \$0.40       | \$0.14       |
| Total long term liabilities             | -            | -            | -            |
| Total assets                            | \$7,192,496  | \$12,886,310 | \$35,389,436 |
| Dividends                               | -            | -            | -            |

Significant changes in key financial data from 2014 to 2016 can be attributed to the availability of equity financing and expenditures in connection with the development of the Company's robotic surgical system.

In 2012, the Company started the transition of its technology development to a single-port robotic surgical system. The continuation of its development efforts was funded by financings completed in subsequent years.

Effective January 1, 2014, the Company adopted, on a prospective basis, the U.S. dollar as its functional and presentation currency. In accordance with IAS 32, because the exercise prices of the warrants issued subsequent to January 1, 2014 are not fixed amounts as they are denominated in a currency (Canadian dollar) other than the Company's functional currency (U.S. dollar), these warrants are accounted for as a derivative financial liability. The warrant liability as well as warrants issuable from the exercise of broker warrants, is initially measured at fair value and subsequent changes in fair value are recorded through the net and comprehensive loss for the applicable year. The fair value of these warrants is initially determined using a comparable warrant quoted in an active market, adjusted for differences in the terms of the warrants. At December 31, 2016, the warrant liability was adjusted to fair value measured at the market price of the listed warrants.

#### **Discussion of Operations**

The Company incurred a net and comprehensive loss of \$23,323,496 during the year ended December 31, 2016, compared with a net and comprehensive loss of \$41,413,281 for the year ended December 31, 2015. This decrease in net and comprehensive loss for the year is primarily attributed to a slowdown of development work in the third and fourth quarter of 2016 due to insufficient capital. Foreign exchange loss in the year ended December 31, 2016 was \$277,303, compared to \$873,823 in 2015.

During the year ended December 31, 2016, the Company continued the development of the Company's robotic surgical system, continued efforts toward furthering key strategic relationships, and carried on efforts to secure the Company's intellectual property through the patent and licensing process. As of December 31, 2016, the Company has ownership or exclusive rights to 14 issued patents and 32 patent applications filed with various patent offices.

Research and development expenditures (all of which were expensed in the year) for the year ended December 31, 2016 and December 31, 2015, respectively, were as follows:

| Research and Development<br>Expenditures | Year Ended<br>December 31,<br>2016 | Year Ended<br>December 31,<br>2015 |
|------------------------------------------|------------------------------------|------------------------------------|
| Intellectual property development        | \$20,000                           | \$20,000                           |
| License and royalties                    | 82,531                             | 517,505                            |
| Product development                      | 22,475,354                         | 37,675,827                         |
| Total                                    | \$22,577,885                       | \$38,213,332                       |

Research and development expenditures decreased in the year ended December 31, 2016 compared to the same period in 2015. This decrease was a result of a reduction in capital available to fund development and design for manufacturing performed by our external development firm and our contract manufacturing firm, particularly during the third and fourth quarter of 2016. In November 2016, both firms resumed work on the development of the SPORT Surgical System on a limited basis.

Excluding foreign exchange, general and administrative expenses for the year ended December 31, 2016, were \$4,949,905 compared to \$3,557,638 for the same period in 2015. This increase in 2016 over 2015 is attributed to an increase in consulting fees, stock based compensation, management & administrative salaries, and travel expenses.

For the year ended December 31, 2016, the foreign exchange loss was \$138,504 before foreign exchange on warrant liabilities, compared to \$1,361,336 for the comparable period in 2015. The decrease in foreign exchange loss of \$1,222,832 for the year ended December 31, 2016 compared to the same period in 2015 is attributed to substantially higher Canadian dollar cash balances in 2015 at less favourable foreign exchange rates than in 2016. The U.S. dollar was considerably stronger against the Canadian dollar in 2015 compared to 2016. The Company does not currently have a formal foreign exchange hedging policy as the Company only maintains a minimum balance on hand of Canadian dollars. At December 31, 2016 the foreign exchange loss on warrant liabilities was \$138,799, versus a gain of \$487,513 for the comparable period in 2015.

The gain attributed to change in fair value of warrants for the year ended December 31, 2016 was \$4,950,013, compared to a gain of \$1,142,876 for the same period at December 31, 2015. This increase in gain of \$3,807,137 reflects a reduction in fair value of warrants in 2016 compared to 2015, coupled with an increase in the number of outstanding warrants from 27,676,965 at December 31, 2015 to 77,451,086 at December 31, 2016.

Titan realized \$7,540 of interest income in the year ended December 31, 2016 and \$88,637 in the year ended December 31, 2015. This decrease in interest income is due to lower cash balances, as the Company advanced its development of the SPORT Surgical System.

For a discussion with regard to the status of the development of the SPORT Surgical System, please see 'Development Objectives'' below.

# Summary of Quarterly Results

The following is selected financial data for each of the eight most recently completed quarters, derived from the Company's financial statements, calculated in accordance with IFRS.

|                                                     | Three<br>Months<br>Ended<br>December<br>31, 2016 | Three<br>Months<br>Ended<br>September<br>30, 2016 | Three Months<br>Ended June<br>30, 2016 | Three<br>Months<br>Ended<br>March 31,<br>2016 | Three<br>Months<br>Ended<br>December<br>31, 2015 | Three<br>Months<br>Ended<br>September<br>30, 2015 | Three<br>Months<br>Ended June<br>30, 2015 | Three<br>Months<br>Ended<br>March 31,<br>2015 |
|-----------------------------------------------------|--------------------------------------------------|---------------------------------------------------|----------------------------------------|-----------------------------------------------|--------------------------------------------------|---------------------------------------------------|-------------------------------------------|-----------------------------------------------|
| Net sales                                           | -                                                | -                                                 | -                                      | -                                             | -                                                | -                                                 | -                                         | -                                             |
| Net and<br>Comprehensive<br>Loss from<br>operations | \$2,008,365                                      | \$1,659,863                                       | \$7,934,874                            | \$11,720,39 4                                 | \$13,136,604                                     | \$10,899,586                                      | \$8,250,823                               | \$9,126,268                                   |
| Basic and diluted loss per share                    | \$0.01                                           | \$0.01                                            | \$0.05                                 | \$0.09                                        | \$0.12                                           | \$0.11                                            | \$0.08                                    | \$0.09                                        |

Significant changes in key financial data from the three months ended March 31, 2015 to the three months ended December 31, 2016 reflects the continued development of a single-port robotic platform with prototypes for use in ongoing laboratory studies. Also included is the effect of the reduction of product research and development work in the third and fourth quarters of 2016 and the revaluation of the Company's warrant liability at fair value, with subsequent changes recorded through net and comprehensive loss for the year.

During the fourth quarter of 2016, operating expenses, other than foreign exchange were \$1,331,891 compared to \$834,456 for the same period in 2015. This increase of \$497,435 is attributed primarily to an increase in stock based compensation as well as additional management and administration salaries, consulting fees and professional fees. Foreign exchange gain in the fourth quarter of 2016 was \$57,664 compared to a foreign exchange gain of \$97,255 for the same period in 2015. This decrease in foreign exchange gain of \$39,591 is primarily attributable to the foreign exchange on warrants, a gain of \$61,114 in 2016 compared to a gain of \$96,967 in 2015. The loss from operations prior to interest income and fair value revaluation of warrants was \$2,336,822.

# Liquidity and Capital Resources

The Company currently does not generate any revenue or income (other than interest income on its cash balances) and accordingly, it is (and it will be for the foreseeable future) dependent primarily upon equity financing for any additional funding required for development and operating expenses.

The ability of the Company to arrange such financing in the future will depend in part upon prevailing capital market conditions and the business success of the Company. There can be no assurance that the Company will be successful in its efforts to arrange additional financing on terms satisfactory to the Company. If additional financing is raised by the issuance of shares or convertible securities from treasury, control of the Company may change and shareholders may suffer additional dilution. If adequate funds are not available, or are not available on acceptable terms, the Company may not be able to take advantage of opportunities, or otherwise to continue its technology development program at its current pace.

Titan had \$4,339,911 of cash, cash equivalents and short-term investments on hand, accounts payable and accrued liabilities, and other liabilities and charges of \$4,232,201, excluding warrant liability at December 31, 2016, compared to \$11,197,573, and \$11,159,829 respectively, at December 31, 2015. Titan's working capital as at December 31, 2016 was \$2,366,832, excluding warrant liability, compared to \$1,273,401, at December 31, 2015. This increase in working capital is primarily attributed to the previously noted reduction of development work and the capital raises completed during the last two quarters of 2016.

Below is a table that sets out the various series of Titan warrants that were previously issued, using historic rates. The disclosure of the potential proceeds in the last column of the table below assumes all warrants are exercised on or before the expiry date. However, there is no assurance that any warrants will be exercised prior to their expiry.

| Ticker<br>Symbol | Issue Date         | Expiry Date        | Number<br>Issued | Number<br>Outstanding | Exercise<br>Price<br>(CDN \$) | Potential<br>Proceeds<br>(CDN \$) |
|------------------|--------------------|--------------------|------------------|-----------------------|-------------------------------|-----------------------------------|
| TMD.WT.C         | March 13, 2013     | March 13, 2018     | 6,260,763        | 5,260,705             | \$1.25                        | 6,575,881                         |
| TMD.WT.E         | April 23, 2014     | April 23, 2017     | 12,203,189       | 12,346,914            | \$2.75                        | 33,954,014                        |
| TMD.WT.F         | November 16, 2015  | November 16, 2020  | 7,012,195        | 7,012,195             | \$1.60                        | 11,219,512                        |
| TMD.WT.G         | February 12, 2016  | February 12, 2021  | 11,670,818       | 11,600,818            | \$1.00                        | 11,600,818                        |
| TMD.WT.G         | February 23, 2016  | February 23, 2021  | 1,746,789        | 1,746,789             | \$1.00                        | 1,746,789                         |
| TMD.WT.H         | March 31, 2016     | March 31, 2021     | 15,054,940       | 15,054,940            | \$1.20                        | 18,065,928                        |
| TMD.WT.H         | April 14, 2016     | April 14, 2021     | 2,258,241        | 2,258,241             | \$1.20                        | 2,709,889                         |
| TMD.WT.I         | September 20, 2016 | September 20, 2021 | 17,083,333       | 17,083,333            | \$0.75                        | 12,812,500                        |
| TMD.WT.I         | October 27, 2016   | October 27, 2021   | 2,030,000        | 2,030,000             | \$0.75                        | 1,522,500                         |
| NOT LISTED       | March 16, 2017     | March 16, 2019     | 10,733,600       | 10,733,600            | \$0.40                        | 4,293,440                         |
| NOT LISTED       | March 16, 2017     | March 16, 2021     | 10,733,600       | 10,733,600            | \$0.50                        | 5,366,800                         |
| TOTAL            |                    |                    | 96,787,468       | 95,861,135            |                               | 109,868,071                       |

9

The following table sets forth the material contractual obligations of the Company at December 31, 2016.

|                                                                  | Payments Due by Period |                     |                |                |                  |  |  |  |  |  |  |  |
|------------------------------------------------------------------|------------------------|---------------------|----------------|----------------|------------------|--|--|--|--|--|--|--|
| Contractual Obligations                                          | Total \$               | Less than<br>1 year | 2 - 3<br>years | 4 - 5<br>years | After<br>5 years |  |  |  |  |  |  |  |
| Purchase Orders for Outsourced Design, Development & Engineering | 4,681,779              | 4,681,779           |                |                |                  |  |  |  |  |  |  |  |
| Milestone Payments                                               | 897,500                |                     |                | 897,500        |                  |  |  |  |  |  |  |  |
| Licensing Agreements                                             | 480,000                | 80,000              | 10,000         | 385,000        | 5,000            |  |  |  |  |  |  |  |
| Total Contractual Obligations                                    | 6,059,279              | 4,761,779           | 10,000         | 1,282,500      | 5,000            |  |  |  |  |  |  |  |

Purchase Orders for Outsourced Design, Development and Engineering - Company has outsourced certain aspects of the design and development to Ximedica, a U.S. based technology development company. At December 31, 2016, \$1,984,978 in purchase orders remained outstanding with that firm. During the year, the Company issued further purchase orders to U.S. based contract manufacturer (the "Contract Manufacturer") to provide further design for manufacturing and engineering services. At December 31, 2016, \$2,696,801 in purchase orders remained outstanding to the Contract Manufacturer.

Milestone Payments - The Company has entered into a number of licensing agreements with suppliers and universities that will require payments to be made to them in future years, based on the achievement by the Company of certain milestones and which payments could total up to \$897,500. Subsequently, following commercialization, royalty payments will be required, based on a percentage of annual net sales of the licensed product, in the range of 4% to 6% per royalty agreement.

Licensing Agreements - The Company has entered into a number of licensing agreements with educational and medical institutions as well as suppliers, with regard to intellectual property to be incorporated into the SPORT Surgical System. These agreements require Titan to make periodic payments in 2017 and beyond.

#### **Development Objectives**

The Company uses a combination of internal resources and external development firms to execute the research, development and commercialization plan for the Company's robotic surgical system.

The Company completed the build of two engineering verification ("EV") units in the fourth quarter of 2015. The Company had announced plans to build first-in-human units in the first quarter of 2016 after the completed build of the two EV units. However, due to the revision of the development path discussed below, the first-in-human units were repurposed as additional EV units and were completed during the first quarter of 2016. The EV units incorporate substantially all of the previous design and engineering work completed on the SPORT Surgical System and may be used for pre-clinical live animal and human cadaver studies. The live animal and human cadaver studies are expected to provide comprehensive and high quality information to have a positive contribution toward anticipated regulatory submissions to the FDA and European regulatory authorities for the CE Mark.

In the first quarter of 2016, in consultation with its advisors, the Company and its principal development firm, Ximedica, re-engineered and optimized the 2016 development plan. This was done partially in view of observations related to the experiences of other robotic surgery companies in dealing with regulatory authorities and published changes to the FDA guidelines, "Applying Human Factors and Usability Engineering to Medical Devices", issued February 3, 2016, and effective April 3, 2016. The Company reviewed the FDA's new guidelines and incorporated additional procedures and documentation into its human factor and usability studies in an effort to comply with the new guidelines. Consequent to this as well as further engineering development initiatives, the Company determined the total costs for it to reach submission of a 510(k) application to the FDA would increase significantly from the Company's previously published estimate. The Company therefore withdrew all prior milestone charts set forth in the Company's Management's Discussion and Analysis and Annual Information Form in respect of the year ended December 31, 2015 and those set forth in its prospectus supplements respectively dated February 9, 2016 and March 24, 2016.

In the second quarter of 2016, the Company entered into a manufacturing and supply agreement with the Contract Manufacturer for the future manufacturing of the SPORT Surgical System. In addition to providing manufacturing expertise, the Contract Manufacturer is expected to participate in the final stages of development and design for manufacturing of the SPORT Surgical System.

During the second half of 2016, the work performed by Ximedica and the Contract Manufacturer engaged by the Company for design and development of the SPORT Surgical System was reduced until such time that the Company received sufficient financing to cover work orders projected over a six-month period. Subsequent to an offering by the Company that closed in October 2016, both firms were re-engaged to resume development of the SPORT Surgical System at a rate consistent with the level of financing raised and acceptable to both Ximedica and the Contract Manufacturer. This scaled-back rate of program funding was intended as a short-term solution to maintain momentum in critical path human factors studies until accelerated product development could be resumed with adequate funding.

Previously, the Company had forecast specific milestones for completion in 2016. Due in part to scaled back development, several of these milestones were not completed. In particular the Company proposed the build of a fifth EV unit, ("EV5"), in the second half of 2016. Based upon imminent design changes, the Company deemed that the build of the EV5 unit would have had little value and could have even diverted valuable engineering and financial resources from progress on known iterative design improvements. It has been determined that the assembly of additional EV units is not necessary at this time. The Company has working prototype units that it believes can be upgraded and made to support human factors studies and anticipated pre-clinical animal and human cadaver testing activities in 2017.

Subsequent to the filing of the Company's prospectus supplement dated September 13, 2016 and its management's discussion and analysis in respect of the three and nine months ended September 30, 2016 and following the resignations of the Company's former Executive Vice President of Regulatory Affairs and the Company's former Chief Executive Officer, the Company completed a detailed review of its development plan and its then current milestones. With the appointment of the Company's new Chief Executive Officer, David McNally, the development review was extended and increased in scope which resulted in the Company's decision to revise its interim development milestones. Consequently, the milestones set forth in the prospectus supplement dated September 13, 2016 and its management's discussion and analysis in respect of the three and nine months ended September 30, 2016 have been withdrawn and replaced with the new milestones contained herein.

The Company had also forecast that it would complete heuristic studies, which are precursors to the more formal formative usability studies, in 2016. Heuristic studies are "hands-on" or interactive approaches to learning, and processes in which technical personnel evaluate a device's user interface against design principles, rules or "heuristic" guidelines. The objective is to evaluate the overall user interface, and identify possible weaknesses in the design, especially when use error could lead to patient or operator harm. Heuristic studies include careful consideration of accepted concepts for design of the user interface. Formative studies involve more in-depth evaluation of the user interface by "subject matter experts", which may include surgeons, nurses, and operating room technicians. The rigorous nature of formative studies with participation by clinical experts typically drives significantly higher associated expenses than heuristic studies. Therefore, it can be more efficient to gain insights from heuristic studies before proceeding to formative studies.

Specifically, the Company had forecast the completion of two heuristic usability modules, or studies in the second half of 2016. These heuristic studies were completed, however the results of the studies yielded opportunities to improve the design of the product. Therefore, after making changes to system prototypes, two additional heuristic modules were completed by the end of 2016, for a total of four heuristic studies performed in 2016. The Company now expects to proceed to complete two formative usability modules in the first half of 2017, promptly following a final analysis of the first four heuristic studies.

The creation and refinement of software for production system functionality has not yet commenced. The Company plans to commence this process in the first half of 2017, and it will likely remain an intensive, ongoing process through the remainder of the year.

It has been determined that the assembly of additional engineering verification units is not necessary at this time. The Company has other working prototype units that it believes can be upgraded and made to support human factors studies and anticipated pre-clinical testing activities in 2017.

At this time, the Company's primary development objectives and milestones in 2017 will be to advance human factors studies, stabilize the design and development of the system and initiate pre-clinical studies.

The Company estimates that it will require a minimum of approximately US\$10 million to fund its development milestones for the first half of 2017, specifically, those related to the advancement of the human factors and usability studies and finalization of user requirements for the first generation SPORT Surgical System. It is further estimated that a minimum of an additional US\$18 million will be required to fund development and pre-clinical studies during the second half of 2017.

The Company presently estimates that a total of US\$75 million of additional capital including the US\$10 million and US\$18 million amounts noted above, will be required to fund development work through submission of the 510(k) application to the FDA and submittal to European authorities for the CE Mark, which are projected by year-end 2018. However, given the uncertainty of, among other things, product development timelines, regulatory requirements and the timing and number of future animal and human cadaver studies that may be required, actual costs and development times may exceed management's current expectations.

The Company estimates costs to the end of 2017 related to the development, commercialization and regulatory clearance of the SPORT system to be as set out in the table below.

| Development Milestones                                                                                          | Estimated Cost (in<br>U.S. million \$) | Schedule for<br>Milestone<br>Completion | Comments  |
|-----------------------------------------------------------------------------------------------------------------|----------------------------------------|-----------------------------------------|-----------|
| Units built and ready for engineering verification                                                              |                                        |                                         |           |
| (Prototype is formally tested to meet previously defined specifications)                                        |                                        | -                                       | -         |
| Build two EV units                                                                                              | -                                      | Q4 2015                                 | Completed |
| Build additional EV units                                                                                       | -                                      | Q1 2016                                 | Completed |
| Perform initial heuristic human factors and usability studies                                                   | -                                      | Q2 2016                                 | Completed |
| Complete human factors and usability studies                                                                    |                                        |                                         |           |
| Finalize user requirements for 1 <sup>st</sup> generation robotic surgical system                               | 4.5                                    | Q1 2017                                 |           |
| Select and confirm strategic facilities for pre- clinical studies in US and Europe                              | 0.5                                    | Q2 2017                                 |           |
| Test and evaluate performance of subsystems of existing EV units                                                | 1.8                                    | Q2 2017                                 |           |
| Complete initial formative human factors studies                                                                | 2.0                                    | Q2 2017                                 |           |
| Initiate design changes based on subsystem performance and human factors evaluation                             | 1.0                                    | Q2 2017                                 |           |
| Implement design changes and retest system and subsystems                                                       | 8.7                                    | Q3 2017                                 |           |
| Update Design History File and documentation for relevant modules of Company Quality Management Systems ("QMS") |                                        | Q3 2017                                 |           |
| Complete initial requirements and architecture for simulation software and training program design              |                                        | Q3 2017                                 |           |

| Development Milestones                                                                                                   | Estimated Cost (in<br>U.S. million \$) | Schedule for<br>Milestone<br>Completion | Comments |
|--------------------------------------------------------------------------------------------------------------------------|----------------------------------------|-----------------------------------------|----------|
|                                                                                                                          |                                        |                                         |          |
| Complete and report on pre-clinical animal studies at strategic facilities in US and Europe                              | 9.2                                    | Q4 2017                                 |          |
| Confirm FDA and CE Mark pathways in coordination with regulatory authorities                                             |                                        | Q4 2017                                 |          |
| Complete software development, system design and update Design History File for regulatory filing                        | TBD <sup>(1)</sup>                     | 2018                                    |          |
| Complete summative human factors evaluation                                                                              |                                        |                                         |          |
| Complete simulation software development and training program design                                                     |                                        |                                         |          |
| Complete and document pre-clinical studies for FDA submittal                                                             |                                        |                                         |          |
| Prepare and submit 510(k) application to FDA and prepare technical file for CE Mark and submit to European Notified Body |                                        |                                         |          |
| Publish white papers on pre-clinical studies                                                                             |                                        |                                         |          |
| Anticipated receipt of FDA 510(k) clearance and CE Mark                                                                  | TBD <sup>(1)</sup>                     | 2019                                    |          |
| Perform successful human surgeries at initial US and European training centres                                           |                                        |                                         |          |
| TOTAL                                                                                                                    | TBD <sup>(1)</sup>                     |                                         |          |

# Notes:

(1) The schedule for future milestone completion cannot be estimated at this time pending receipt and confirmation of detailed cost projections by the Company's principal development and manufacturing service providers.

Upon completion of the development of the SPORT Surgical System and following receipt of applicable regulatory clearances, the Company intends to utilize a direct sales force and/or distribution partners to initiate marketing the SPORT Surgical System to hospitals.

Due to the nature of medical device technology research and development, there is no assurance that these objectives will be achieved, and there can be no assurance with respect to the time or resources that may be required. The Company expects that additional specific milestones could be identified as the development of its robotic surgical system progresses, or existing milestones, budgets and the schedule for completion of each milestone may change depending on a number of factors including the results of the Company's development program, the availability of financing and the ability of development firms engaged by the Company to completed work assigned to them. The total costs to complete the development of the Company's SPORT Surgical System as referenced above are only estimates based on current information available to the Company and cannot yet be determined with a high degree of certainty, and the costs may be substantially higher than estimated.

Please also refer to the risk factors set forth starting on page 13 of the Company's Annual Information Form for the 2015 fiscal year, available on SEDAR at www.sedar.com.

#### Financings

# First Quarter of 2017

On March 16, 2017 Titan completed an offering of securities made pursuant to an agency agreement dated March 10, 2017 between the Company and Bloom Burton Securities Inc. (the "Agent"). The Company sold 21,467,200 units under the Offering at a price of CDN\$0.35 per Unit for gross proceeds of approximately \$5,680,221 (\$5,100,880 net of closing cost including cash commission of \$394,316 paid in accordance with the terms of the agency agreement). Each Unit consisted of one Common Share of the Company and (i) one-half of one Common Share purchase warrant, each whole warrant entitling the holder thereof to acquire one Common Share of the Company at an exercise price of CDN \$0.40 and expiring March 16, 2019, and (ii) one-half of one Common Share purchase warrant, each whole warrant entitling the holder thereof to acquire on Common Share of the Company at an exercise price of CDN \$0.50 and expiring March 16, 2021.

Pursuant to the agency agreement, in addition to the cash commission paid to the Agent, broker warrants were issued to the Agent which entitle the holder to purchase 1,500,155 Common Shares at a price of CDN \$0.35 per share prior to expiry on March 16, 2019.

#### Offering in Second Half of 2016

On September 20, 2016 Titan completed an offering of securities pursuant to an agency agreement dated September 13, 2016 between the Company and Bloom Burton & Co. Limited and Echelon Wealth Partners Inc. (the "Agents"). The Company sold 17,083,333 units ("Units") under the Offering at a price of CDN \$0.60 per Unit for gross proceeds of \$7,749,000 (\$6,951,987 net of closing costs including cash commission of \$528,668 paid in accordance with the terms of the agency agreement). Each Unit comprised of one common share of the Company and one warrant. Each whole warrant entitles its holder to purchase one additional common share of Titan for CDN \$0.75 and will expire September 20, 2021.

Pursuant to the agency agreement, in addition to the cash commission paid to the Agents, the Company issued 1,165,494 broker warrants to Agents. Each broker warrant entitles the holder thereof to acquire one common share of the Company at the price of CDN\$0.60 and expires September 20, 2018.

On October 27, 2016, the Agents exercised the over-allotment option granted by the Company in connection with the September 20, 2016 offering and the Company sold an additional 2,030,000 Units at the offering price of CDN \$0.60 per Unit for additional gross proceed of \$909,846 (\$845,181 net of closing costs including cash commission of \$63,689 paid in accordance with the terms of the agency agreement).

In connection with the exercise of the over-allotment option, the Company paid a cash commission equal to 7% of the gross proceeds to the Company from the exercise of the over-allotment option and issued 142,100 broker warrants to the Agents.

In connection with the offering, the Company filed a prospectus supplement dated March 10, 2017 to its base shelf prospectus dated August 18, 2015.

# Offerings During First Half of 2016

On February 12, 2016 Titan completed an offering of securities made pursuant to an agency agreement dated February 9, 2016 between the Company and Bloom Burton. The Company sold 11,670,818 units under the offering at a price of CDN\$0.90 per unit for gross proceeds of approximately \$7,592,101 (\$6,844,046 net of closing costs including cash commission of \$516,622 paid in accordance with the terms of the agency agreement). Each unit consisted of one common share of the Company and one common share purchase warrant. Each whole warrant entitles the holder thereof to acquire one common share of the Company at an exercise price of CDN\$1.00 and expires February 12, 2021.

On February 23, 2016 the over-allotment option in connection with the Company's February 12, 2016 offering of 11,670,818 units was exercised in full, and the Company sold an additional 1,746,789 units at the offering price of CDN\$0.90 per unit for gross proceeds to Titan of approximately \$1,139,937 (\$1,029,605 net of closing costs including cash commission of \$79,796 paid in accordance with the terms of the agency agreement). Each whole warrant entitles the holder thereof to acquire one common share of the Company at an exercise price of CDN\$1.00 and expires February 23, 2021.

Pursuant to the agency agreement, in addition to the cash commission paid to Bloom Burton, the Company issued 916,443 broker warrants to Bloom Burton. Each broker warrant entitles the holder thereof to acquire one unit of the Company at the price of CDN\$0.90 and expires February 23, 2018. Each unit consists of one common share of the Company and one common share purchase warrant. Each purchase warrant entitles the holder thereof to acquire one common share of the Company at an exercise price of CDN\$ 1.00 and expires February 23, 2021.

On March 31, 2016 Titan completed an offering of securities pursuant to an agency agreement dated March 24, 2016 between the Company and Bloom Burton. The Company sold 15,054,940 units under the offering price of CDN\$1.00 per unit for gross proceeds of approximately \$11,607,359 (\$10,571,919 net of closing costs including cash commission of \$796,324 paid in accordance with the terms of the agency agreement). Each unit comprises one common share of Titan and one warrant. Each whole warrant entitles its holder to purchase one additional common share of Titan for CDN\$1.20 and will expire March 31, 2021.

Pursuant to the agency agreement, in addition to the cash commission paid to Bloom Burton, the Company issued 1,032,845 broker warrants to Bloom Burton. Each broker warrant entitles the holder thereof to acquire one unit of the Company at the price of CDN\$1.00 and expires March 31, 2018. Each unit consists of one common share of the Company and one common share purchase warrant. Each purchase warrant entitles the holder thereof to acquire one common share of the Company at an exercise price of CDN\$ 1.20 and expires February 23, 2021.

On April 14, 2016 the over-allotment option to the Company's March 31, 2016 offering was exercised in full and the Company sold an additional 2,258,241 units at the offering price for additional gross proceeds of \$1,759,396 (\$1,633,407 net of closing costs including commission of \$123,158 paid in accordance with the terms of the agency agreement).

Pursuant to the agency agreement, in addition to the cash commission paid to Bloom Burton, the Company issued 158,076 broker warrants to Bloom Burton. Each broker warrant entitles the holder thereof to acquire one unit of the Company at the price of CDN\$1.00 and expires April 14, 2018.

#### Longtai Medical Inc.

On October 30, 2015, the Company entered into a letter agreement (the "Letter Agreement") with Longtai Medical Inc. Under the terms of the Letter Agreement, on November 23, 2015, Longtai subscribed for and purchased US \$4,000,000 worth of Common Shares under a private placement, at a subscription price of CDN \$1.23 per Common Share. In the Letter Agreement, the Company granted to Longtai exclusive rights to negotiate with the Company for an exclusive marketing, sales and distribution agreement for the Company's SPORT Surgical System in the Asia Pacific region (the "Distributorship Agreement") for a period of 183 days commencing at closing of the private placement. Additionally, Longtai paid to the Company US \$2,000,000 as a deposit toward the Distributorship Agreement ("Distributorship Deposit"), which is required to be repaid to Longtai in the event that the Distributorship Agreement is not entered into within such 183 day period. On May 24, 2016, the Company and Longtai executed a three month exclusive rights granted to Longtai to negotiate the Distributorship Agreement and for the repayment of the Distributorship Deposit to Longtai, extending the negotiation period and the date for repayment of the Distributorship Deposit to August 19, 2016.

On August 24, 2016, Titan announced that it had extended the exclusive rights granted to Longtai to negotiate the Distributorship Agreement from the previous three month extension to monthly progress reviews. Longtai agreed that, concurrently with the signing of the Distributorship Agreement, it shall subscribe for and purchase an additional US \$4,000,000 worth of Common Shares at a subscription price equal to the 5-day volume weighted average price of the Common Shares on the TSX (less a 12.5% discount). If the Distributorship Agreement is executed and the second US \$4,000,000 private placement is completed, the Company shall retain US \$1,400,000 of the Distributorship Deposit and repay US \$600,000 to Longtai. There can be no assurance that the parties will be able to negotiate and enter into a Distributorship Agreement or that the parties will complete the US \$4,000,000 private placement.

The utilization of proceeds as outlined in the prospectus supplement dated February 9, 2016, March 24, 2016 and September 13, 2016 to the short form base shelf prospectus of the Company dated August 18, 2015 has been updated as outlined in the following table:

|                                                                 | Proceeds from the<br>Offering as<br>outlined in the<br>prospectus<br>supplement dated<br>February 9, 2016<br>(Including the 15%<br>overallotment) |           | Proceeds from the<br>Offering as<br>outlined<br>in the prospectus<br>supplement dated<br>March 24, 2016<br>(Including the 15%<br>overallotment) |            | Proceeds from the<br>Offering as outlined<br>in the prospectus<br>supplement dated<br>September 13, 2016<br>(Including the 15%<br>overallotment) |           |    | tal        |
|-----------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------|------------|--------------------------------------------------------------------------------------------------------------------------------------------------|-----------|----|------------|
| Ongoing development and commercialization of the SPORT Surgical | ¢                                                                                                                                                 | 6.298.920 | \$                                                                                                                                              | 9,764,261  | \$                                                                                                                                               | 6.237.734 | ¢  | 22,300,915 |
| System                                                          | Ф                                                                                                                                                 | 0,298,920 | Ф                                                                                                                                               | 9,704,201  | ¢                                                                                                                                                | 0,237,734 | ¢  | 22,500,915 |
| General working capital requirements                            |                                                                                                                                                   | 1,574,731 |                                                                                                                                                 | 2,441,065  |                                                                                                                                                  | 1,559,434 |    | 5,575,230  |
| Total Net Proceeds                                              | \$                                                                                                                                                | 7,873,651 | \$                                                                                                                                              | 12,205,326 | \$                                                                                                                                               | 7,797,168 | \$ | 27,876,145 |

The Company has not deviated from its plan to use the net proceeds of the offerings described in the table above towards the ongoing development and commercialization of its SPORT Surgical System and general working capital purposes.

#### **Off-Balance Sheet Arrangements**

Other than for leased premises occupied by the Company, and licensing agreements both of which are discussed in note 8 of the audited financial statements for the year ended December 31, 2016 and 2015, the Company does not utilize off balance sheet arrangements.

#### **Outstanding Share Data**

The following table summarizes the outstanding share capital as of the date of this Management's

#### Discussion and Analysis:

| Type of Securities             | Number of Common Shares issued or issuable<br>upon conversion |
|--------------------------------|---------------------------------------------------------------|
| Common Shares                  | 187,978,646                                                   |
| Stock Options <sup>(1)</sup>   | 15,225,260                                                    |
| Warrants(2)                    | 95,861,135                                                    |
| Broker Warrants <sup>(3)</sup> | 4,915,113                                                     |

Notes:

(1) The Company has outstanding options enabling certain employees, directors, officers and consultants to purchase Common Shares. Please refer to note 5(b) of the Audited Financial Statements for terms of such options.

<sup>(2)</sup> Each Warrant entitles its holder to purchase one Common Share of the Company.

(3) Pursuant to the agency agreement in respect of the February 2016 offering, in addition to the cash commission paid to the agent for the offering, 916,443 broker warrants were issued to the agent. Each broker warrant entitles the holder thereof to acquire one unit of the Company at the price of CDN\$0.90 for a period of 24 months following the closing date. Each unit consists of one Common Share and one warrant. Each warrant entitles the holder to acquire one Common Share at an exercise price of CDN\$1.00 for a period of 60 months from the date of closing.

Pursuant to the agency agreement in respect of the March 2016 offering, in addition to the cash commission paid to the Agents, 1,190,921 broker warrants were issued to the agent. Each broker warrant entitles the holder thereof to acquire one unit of the Company at the price of CDN \$1.00 for a period of 24 months following the closing date. Each unit consists of one Common Share and one warrant. Each warrant entitles the holder to acquire one Common Share at an exercise price of CDN \$1.20 per share for a period of 60 months from the date of closing.

Pursuant to the agency agreement in respect of the September 2016 offering, in addition to the cash commission paid to the agents, 1,307,594 broker warrants were issued to the agents. Each broker warrant entitles the holder thereof to acquire one common share of the Company at the price of CDN \$0.60 for a period of 24 months following the closing date.

Pursuant to the agency agreement in respect of the March 2017 offering, in addition to the cash commission paid to the agents, 1,500,155 broker warrants were issued to the agents. Each broker warrant entitles the holder thereof to acquire one common share of the Company at the price of CDN \$0.35 for a period of 24 months following the closing date.

A total of 916,443, 1,190,921, 1,307,594 and 1,500,155 broker warrants were issued in connection with the February 2016 offering, March 2016, September 2016 and March 2017 offering, respectively. As of the date hereof, all broker warrants remain outstanding.

#### Accounting Policies

The accounting policies set out in the notes to the audited financial statements have been applied in preparing the audited financial statements for the year ended December 31, 2015. The preparation of financial statements in conformity with IFRS requires management to make estimates and assumptions that affect the reported amount of assets and liabilities and disclosure of provisions at the date of the financial statements and the reported amount of expenses during the year. Financial statement items subject to significant judgement include, (a) the measurement of stock based compensation and (b) the fair value estimate of the initial measurement of new warrant liabilities. While management believes that the estimates and assumptions are reasonable, actual results may differ. The Black-Scholes model used by the Company to determine fair values of stock options and warrants was developed for use in estimating the fair value of the stock options and warrants. This model requires the input of highly subjective assumptions including future stock price volatility and expected time until exercise. Changes in the subjective input assumptions can materially affect the fair value estimate.

#### Fair Value

#### (a) Stock Options

The Black-Scholes model used by the Company to determine fair values of stock options and warrants was developed for use in estimating the fair value of the stock options and warrants. This model requires the input of highly subjective assumptions including future stock price volatility and expected time until exercise. Changes in the subjective input assumptions can materially affect the fair value estimate.

#### (b) Warrant Liability

In accordance with IAS 32, because the exercise price of new warrants are not a fixed amount, they are denominated in a currency (Canadian dollar) other than the Company's functional currency (U.S. dollar). Accordingly, the warrants are accounted for as a derivative financial liability. The warrant liability is initially measured at fair value and subsequent changes in fair value are recorded through Net and Comprehensive Loss for the year. The accounting guidance for fair value measurements prioritizes the inputs used in measuring fair value into the following hierarchy:

Level 1 - Quoted prices (unadjusted) in active markets for identical assets or liabilities;

Level 2 – Inputs other than quoted prices included within Level 1 that are directly or indirectly observable:

Level 3 – Unobservable inputs in which little or no market activity exists, therefore requiring an entity to develop its own assumptions about the assumptions that market participants would use in pricing.

The fair value of our Warrant liability is initially based on level 2 (significant observable inputs) and at December 31, 2016 is based on level 1, quoted prices (unadjusted) in an active market

#### **Related Party Transactions**

During the year ended December 31, 2016, transactions between the Company and directors, officers and other related parties were related to compensation matters in the normal course of operations and are measured at the exchange amount, which is the amount of consideration established and agreed to by the related parties.

On June 8, 2015, the Company entered into an option agreement with Platform Imaging, LLC ("Platform") whereby Platform granted the Company an option to negotiate a license agreement to have exclusive rights to practice the inventions set forth in patents and patent applications for markerless tracking of robotic surgical tools for potential incorporation in the SPORT Surgical System and to distribute such product thereafter. Under the terms of the option agreement, the Company paid to Platform a non-refundable option fee of \$300,000 as follows: (i) \$100,000 upon signing the option agreement; (ii) \$100,000 on January 2, 2016; and (iii) \$100,000 on October 1, 2016. In addition, the Company had the right at any time up to and including February 2, 2017, to exercise the option by paying a fee of \$1.3 million for the rights under the license agreement, payable upon execution of a license agreement. Titan has given written notice that it does not intend to exercise the option.

A former senior officer of Titan was also a co-founder, significant shareholder, a director and a member of the senior management team of Platform, as well as the co-inventor of the developed technology.

During the year, an individual related to a former senior executive, provided consulting services in support of sales and marketing efforts for the U.S. and European markets. Annual compensation of \$148,320 plus reimbursement of appropriate expenses was paid to the individual. That individual is no longer employed by Titan Medical.

#### Financial Instruments

The Company's financial instruments consist of cash and cash equivalents, short-term investments, amounts receivable, accounts payable and accrued liabilities, warrant liability, and other liabilities and charges. The fair value of these financial instruments approximates their carrying values, unless otherwise noted, due to the short maturities of these instruments or the discount rate applied.

#### Outlook

Titan continues to focus its efforts on the research and development of the SPORT Surgical System and is continuing to move toward commercialization. In 2016, the Company completed the build of several prototype units, which when upgraded will be used in 2017 for pre-clinical animal and human cadaver studies.

At this time, the Company's primary development objectives and milestones in 2017 will be to advance human factors studies, formalize user requirements, stabilize the design and development of the system, and initiate pre-clinical studies. Pre-clinical studies performed in live animal subjects by surgeons with fully-functional prototypes are expected to provide valuable insights regarding system performance, as well as the suitability of related surgical accessories, during representative surgical procedures under controlled laboratory conditions.

Based on the evolution of the design of the SPORT Surgical System, the creation and refinement of software for production system functionality has not yet commenced. As the system design matures early in 2017, the Company plans to commence this process in the first half of 2017, and anticipates that it will continue as an intensive, ongoing process through the balance of 2017 with anticipated completion in 2018. As software development is a parallel effort, it is anticipated that insights gained from human factors and preclinical studies will provide opportunities to optimize the system for clinical use.

Titan is developing its quality management system (QMS) to be compliant with FDA regulations and in preparation for the audits leading to obtaining the CE Mark. As required testing is completed, the results will be incorporated into the design documentation and technical files to be reviewed during future audits. The Company is planning for studies to support the Company's 510(k) application for FDA clearance as appropriate in the development process.

On a regular basis, Titan undertakes a detailed analysis and reasonableness review of its development milestones and related cost estimates.

Over the next twelve months, the Company plans to raise additional financing and to continue the development and commercialization of the SPORTSurgical System.

#### Additional Information

Additional information relating to Titan, including Titan's Annual Information Form for the 2015 fiscal year, is available on SEDAR atwww.sedar.com.

# TITAN MEDICAL INC. FINANCIAL STATEMENTS YEARS ENDED DECEMBER 31, 2016 AND 2015

(IN UNITED STATES DOLLARS)



#### **Independent Auditor's Report**

#### To the Shareholders of Titan Medical Inc.

We have audited the accompanying financial statements of Titan Medical Inc., which comprise the balance sheets as at December 31, 2016 and December 31, 2015 and the statements of shareholders' equity and deficit, net and comprehensive loss and cash flows for the years ended December 31, 2016 and December 31, 2015 and a summary of significant accounting policies and other explanatory information.

# Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with International Financial Reporting Standards as issued by the International Accounting Standards Board, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

# Auditor's Responsibility

Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits in accordance with Canadian generally accepted auditing standards. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained in our audits is sufficient and appropriate to provide a basis for our audit opinion.

# Opinion

In our opinion, the financial statements present fairly, in all material respects, the financial position of Titan Medical Inc. as at December 31, 2016 and December 31, 2015 and its financial performance and its cash flows for the years ended December 31, 2016 and December 31, 2015 in accordance with International Financial Reporting Standards as issued by the International Accounting Standards Board.

# BDO Canada LLP

### Chartered Accountants, Licensed Public Accountants

Toronto, Ontario March 21, 2017

BDO Canada LLP, a Canadian limited liability partnership, is a member of BDO International Limited, a UK company limited by guarantee, and forms part of the international BDO network of independent member firms.

|                                           | December<br>2016 | 31, December 31,<br>2015 |
|-------------------------------------------|------------------|--------------------------|
| ASSETS                                    |                  |                          |
| CURRENT                                   |                  |                          |
| Cash and cash equivalents                 | \$ 4,3           | 39,911 \$ 11,197,573     |
| Amounts receivable                        | 1                | 76,009 57,752            |
| Deposits (Note 8)                         | 2,0              | 1,040,00                 |
| Prepaid expenses                          |                  | 56,465 137,90            |
| Total Current Assets                      | 6,5              | 99,033 12,433,230        |
| Furniture and Equipment (Note 3)          |                  | 9,350 4,52               |
| Patent Rights (Note 4)                    | 5                | 34,113 448,55            |
| TOTAL ASSETS                              | \$ 7,1           | 92,496 \$ 12,886,310     |
| LIABILITIES                               |                  |                          |
| CURRENT                                   |                  |                          |
| Accounts payable and accrued liabilities  | \$ 2,2           | 32,201 \$ 9,159,82       |
| Warrant liability (Note 2(h) and 6)       | 2,3              | 55,691 2,137,75          |
| Other Liabilities and charges (Note 5(a)) | 2,0              | 2,000,000                |
| TOTAL LIABILTIES                          | 65               | 12 207 59                |
| SHAREHOLDERS' EQUITY                      | 6,5              | 07,892 13,297,58         |
| Share Capital (Note 5(a))                 | 112.7            | 42,810 86,083,419        |
| Contributed Surplus                       |                  | 2,849,06                 |
| Warrants (Note 5 (b))                     | ,                | 55,800 4,044,192         |
| Deficit                                   |                  | (93,387,94               |
| Total Equity                              |                  | 94,604 (411,270          |
| TOTAL LIABILITIES & EQUITY                |                  | 92,496 \$ 12,886,310     |

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Commitments (Note 8) See accompanying notes to financial statements

# Approved on behalf of the Board:

Martin BernholtzDavid McNallyChairmanCEO

# TITAN MEDICAL INC. Statements of Shareholders' Equity and Deficit For the Years Ended December 31, 2016 and 2015 (In U.S. Dollars)

|                                                 | Share Capital<br>Number | s  | Share Capital<br>Amount | (  | Contributed<br>Surplus | Warrants        | Deficit             | Total<br>Equity  |
|-------------------------------------------------|-------------------------|----|-------------------------|----|------------------------|-----------------|---------------------|------------------|
| Balance - December 31, 2014                     | 102,555,338             | \$ | 73,094,032              | \$ | 2,491,427              | \$<br>6,014,360 | \$<br>(51,974,661)  | \$<br>29,625,158 |
| Issued pursuant to agency agreement             | 9 9,349,593             |    | 7,841,724               |    |                        |                 |                     | 7,841,724        |
| Private Placement                               | 4,290,280               |    | 4,000,000               |    |                        |                 |                     | 4,000,000        |
| Share Issue Expense                             |                         |    | (1,018,825)             |    |                        |                 |                     | (1,018,825)      |
| Warrants exercised during the year              | 56,275                  |    | 60,119                  |    |                        | (5,641)         |                     | 54,478           |
| Warrants expired during the year                |                         |    | 1,964,527               |    |                        | (1,964,527)     |                     | -                |
| Options exercised during the year               | 206,000                 |    | 141,842                 |    | (71,180)               |                 |                     | 70,662           |
| Stock based compensation                        |                         |    |                         |    | 428,814                |                 |                     | 428,814          |
|                                                 |                         |    |                         |    |                        |                 |                     |                  |
| Net and Comprehensive loss for the year         |                         |    |                         |    |                        |                 | (41,413,281)        | (41,413,281)     |
|                                                 |                         |    |                         |    |                        |                 |                     |                  |
| Balance - December 31, 2015                     | 116,457,486             | \$ | 86,083,419              | \$ | 2,849,061              | \$<br>4,044,192 | \$<br>(93,387,942)  | \$<br>(411,270)  |
| Issued pursuant to agency agreement             | 49,844,121              |    | 25,708,829              |    |                        |                 |                     | 25,708,829       |
| Private Placement                               | 130,839                 |    | 100,000                 |    |                        |                 |                     | 100,000          |
| Share issue expense                             |                         |    | (2,408,550)             |    |                        |                 |                     | (2,408,550)      |
| Warrants exercised during the year              | 70,000                  |    | 63,288                  |    |                        |                 |                     | 63,288           |
| Warrants expired during the year                |                         |    | 3,188,392               |    |                        | (3,188,392)     |                     | -                |
| Options exercised during the year               | 9 9,000                 |    | 7,432                   |    | (3,825)                |                 |                     | 3,607            |
| Stock based compensation                        |                         |    |                         |    | 862,196                |                 |                     | 862,196          |
|                                                 |                         |    |                         |    |                        |                 |                     |                  |
| Net and Comprehensive loss for the year         |                         |    |                         |    |                        |                 | (23,323,496)        | (23,323,496)     |
| Balance – December 31, 2016                     | 166,511,446             | \$ | 112,742,810             | \$ | 3,707,432              | \$<br>855,800   | \$<br>(116,711,438) | \$<br>594,604    |
| See accompanying notes to financial statements. |                         |    |                         |    |                        |                 |                     |                  |

|                                                            |    | ear Ended<br>ecember 31,<br>2016 | Year Ended<br>December 31,<br>2015 |
|------------------------------------------------------------|----|----------------------------------|------------------------------------|
|                                                            |    |                                  |                                    |
| REVENUE                                                    | \$ | - \$                             | _                                  |
| EXPENSES                                                   |    |                                  |                                    |
| Amortization                                               |    | 24,640                           | 32,388                             |
| Consulting fees                                            |    | 607,032                          | 355,473                            |
| Stock based compensation (Note 5(b))                       |    | 862,196                          | 428,814                            |
| Insurance                                                  |    | 21,858                           | 29,052                             |
| Management salaries and fees                               |    | 1,625,110                        | 1,145,873                          |
| Marketing and investor relations                           |    | 396,307                          | 323,650                            |
| Office and general                                         |    | 297,137                          | 259,009                            |
| Professional fees                                          |    | 550,615                          | 521,220                            |
| Rent                                                       |    | 96,578                           | 106,317                            |
| Research and development                                   |    | 22,577,885                       | 38,213,332                         |
| Travel                                                     |    | 468,432                          | 355,843                            |
| Foreign exchange loss                                      |    | 277,303                          | 873,823                            |
|                                                            |    | 27,805,093                       | 42,644,794                         |
|                                                            |    | 27,005,075                       | 42,044,794                         |
| FINANCE INCOME(COST)                                       |    |                                  |                                    |
| Interest                                                   |    | 7,540                            | 88,637                             |
| Gain on change in fair value of warrants (Note 2(h) and 6) |    | 4,950,013                        | 1,142,876                          |
| Warrant liability issue cost                               |    | (475,956)                        | 1,142,070                          |
| warrant naointy issue cost                                 |    | 4,481,597                        | 1,231,513                          |
| NET AND COMPREHENSIVE LOSS FOR THE YEAR                    | \$ | (23,323,496) \$                  | (41,413,281)                       |
|                                                            | Ψ  | (25,525,156) \$                  | (11,113,201)                       |
| BASIC AND DILUTED LOSS PER SHARE                           | \$ | (0.16) \$                        | (0.40)                             |
| WEIGHTED AVERAGE NUMBER OF COMMON SHARES,                  |    |                                  |                                    |
| Basic and Diluted                                          |    | 146,558,122                      | 104,272,364                        |
| See accompanying notes to financial statements             |    |                                  |                                    |
| F 7 8 1111                                                 |    |                                  | 3                                  |

# TITAN MEDICAL INC. Statements of Cash Flows For the Years ended December 31, 2016 and 2015 (In U.S. Dollars)

|                                                          | Year Ended<br>December 31,<br>2016 | Year Ended<br>December 31,<br>2015 |
|----------------------------------------------------------|------------------------------------|------------------------------------|
| OPERATING ACTIVITIES                                     |                                    |                                    |
| Net loss for the year                                    | \$<br>(23,323,496)                 | 6 (41,413,281)                     |
| Items not involving cash:                                |                                    |                                    |
| Amortization                                             | 24,640                             | 32,388                             |
| Stock based compensation                                 | 862,196                            | 428,814                            |
| Warrant liability – fair value adjustment                | (4,950,013)                        | (1,142,876)                        |
| Warrant liability – foreign exchange adjustment          | 138,799                            | (487,513)                          |
| Changes in working capital items:                        |                                    |                                    |
| Amounts receivable, prepaid expenses and deposits        | (1,023,465)                        | (133,049)                          |
| Accounts payable and accrued liabilities                 | (6,927,628)                        | 6,393,514                          |
| Other liabilities and charges                            | -                                  | 2,000,000                          |
| Cash used in operating activities                        | (35,198,967)                       | (34,322,003)                       |
| FINANCING ACTIVITIES                                     |                                    |                                    |
| Net proceeds from issuance of common shares and warrants | 28,506,328                         | 11,718,216                         |
| Cash provided by financing activities                    | 28,506,328                         | 11,718,216                         |
| INVESTING ACTIVITIES                                     |                                    |                                    |
| Increase in furniture and equipment                      | (10,088)                           | (4,528)                            |
| Decrease in Short-term Investments                       | - · · · -                          | 7,758,000                          |
| Costs of Patents                                         | (154,935)                          | (117,294)                          |
| Cash provided by (used in) investing activities          | (165,023)                          | 7,636,178                          |
| DECREASE IN CASH AND CASH EQUIVALENTS                    | (6,857,662)                        | (14,967,609)                       |
| CASH AND CASH EQUIVALENTS, BEGINNING OF YEAR             | 11,197,573                         | 26,165,182                         |
| CASH AND CASH EQUIVALENTS, END OF YEAR                   | \$<br>4,339,911                    | 5 11,197,573                       |
| CASH AND CASH EQUIVALENTS COMPRISE:                      |                                    |                                    |
|                                                          |                                    |                                    |
| Cash                                                     | \$<br>128,409                      |                                    |
| Money Market Fund                                        | 4,211,502                          | 10,779,824                         |
| interior y interior y and                                | \$<br>4.339.911                    | 5 11,197,573                       |

4

# 1. DESCRIPTION OF BUSINESS

#### Nature of Operations:

The Company's business continues to be in the research and development stage and is focused on the continued research and development of the next generation surgical robotic platform. In the near term, the Company will continue efforts toward a platform to be used for pre-clinical studies and satisfaction of appropriate regulatory requirements. Upon receipt of regulatory clearance, the Company will be in a position to transition from the research and development stage to the commercialization stage. The completion of these latter stages will be subject to the Company receiving additional funding in the future.

The Company is incorporated in Ontario, Canada in accordance with the Business Corporations Act.

The address of the Company's corporate office and its principal place of business is Toronto, Canada.

#### **Basis of Preparation**:

#### (a) Statement of Compliance

These financial statements for the year ended December 31, 2016 and December 31, 2015 have been prepared in accordance with International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board ("IASB").

The financial statements were authorized for issue by the Board of Directors on March 21, 2017.

#### (b) Basis of Measurement

These financial statements have been prepared on the historical cost basis except for the revaluation of the warrant liability, which is measured at fair value.

#### (c) Functional and Presentation Currency

These financial statements are presented in United States dollars ("U.S."), which is the Company's functional and presentation currency.

#### 2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

#### (a) Use of Estimates and Judgements

The preparation of financial statements in conformity with IFRS requires management to make estimates and assumptions that affect the reported amount of assets and liabilities and disclosure of provisions at the date of the financial statements and the reported amount of expenses during the year. Financial statement items subject to significant judgement include, the measurement of stock based compensation and the fair value estimate of the initial measurement of new warrant liabilities. While management believes that the estimates and assumptions are reasonable, actual results may differ.

In assessing whether the going concern assumption is appropriate, management takes into account all available information about the future, which is at least, but not limited to, twelve months from the end of the reporting period. As disclosed in Note 10(b), The Company expects that approximately US \$28.0 million in incremental funding, inclusive of the offering completed subsequent to the year end, will be required by the end of 2017 to maintain its currently anticipated pace of development. If additional funding is not available, the pace of the Company's product development plan may be reduced. However, based on internal forecasts, Management believes that the Company has sufficient funds to meet its obligations under a reduced development plan, if necessary, for the ensuing twelve months.

# 2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

#### Fair Value

The Black-Scholes model used by the Company to determine fair values of stock options and warrants was developed for use in estimating the fair value of the stock options and warrants. This model requires the input of highly subjective assumptions including future stock price volatility and expected time until exercise. Changes in the subjective input assumptions can materially affect the fair value estimate.

#### (b) Cash and Cash Equivalents

Cash and cash equivalents include cash balances and amounts on deposit in high interest savings accounts.

#### (c) Furniture and Equipment

Furniture and equipment are recorded at cost less accumulated amortization and accumulated impairment losses, if any. The Company records amortization using the straight-line method over the estimated useful lives of the capital assets as follows:

| a) | Computer Equipment     | 3 years           |
|----|------------------------|-------------------|
| b) | Furniture and Fixtures | 3-5 years         |
| c) | Leasehold Improvements | Term of the lease |

#### (d) Impairment of long-lived assets

The Company reviews computer equipment, furniture and equipment, leasehold improvements and patent rights for objective evidence of impairment whenever events or changes in circumstances indicate the carrying amount may not be recoverable. Recoverability is measured by comparison of the assets carrying amount to the assets recoverable amount, which is the greater of fair value less cost to sell and value in use. Value in use is measured as the expected future discounted cash flows expected to be derived from the asset. If the carrying value exceeds the receivable amount, the asset is written down to the recoverable amount.

#### (e) Patent Rights

Patent rights are recorded at cost less accumulated amortization and accumulated impairment loss. Straight line amortization is provided over the estimated useful lives of the assets, as prescribed by the granting body, which range up to twenty years.

#### (f) Deferred Income Taxes

The Company uses the asset and liability method of accounting for income taxes. Under this method, deferred tax assets and liabilities are determined based on differences between the financial reporting and tax bases of assets and liabilities, unused tax losses and income tax reductions, and are measured using the substantively enacted tax rates and laws that will be in effect when the differences are expected to reverse. A deferred tax asset is recognized for unused tax losses, tax credits and deductible temporary differences, to the extent that it is probable that future taxable profits will be available against which they can be utilized. Deferred tax assets are reviewed at each reporting date and are reduced to the extent that it is no longer probable that the related tax benefit will be realized. The ultimate realization of deferred tax assets is dependent upon the generation of future taxable income during the periods in which those temporary differences become deductible. Management considers the scheduled reversal of deferred tax liabilities, projected future taxable income and tax planning strategies in making this assessment.

Management has determined not to recognize its net deferred tax assets, as it is not considered probable that future tax benefits will be realized.

### (g) Foreign Currency

Transactions in currencies other than U.S. dollars are translated at exchange rates in effect at the date of the transactions. Foreign exchange differences arising on settlement are recognized separately in net and comprehensive loss. Monetary year end balances are converted to U.S. dollars at the rate in effect at that time as per the Bank of Canada.

# 2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

Non-monetary items in a currency other than U.S. dollars that are measured in terms of historical cost are translated using the exchange rate at the date of transaction or date of adoption of U.S functional currency, whichever is later. Foreign exchange gains and losses are included in net and comprehensive loss.

#### (h) Warrant Liability

In accordance with IAS 32, because the exercise prices of new warrants issued, after the Company's adoption of the U.S. dollar as its functional currency and presentation currency, as well as the warrants issued from the exercise of broker warrants, are not a fixed amount as they are denominated in a currency (Canadian dollar) other than the Company's functional currency (U.S. dollar), the warrants are accounted for as a derivative financial liability. Each Warrant Liability is initially measured at fair value and subsequent changes in fair value are recorded through Net and Comprehensive Loss for the year. The fair value of these warrants was determined initially using a comparable warrant quoted in an active market, adjusted for differences in the terms of the warrant. At December 31, 2016, the Warrant Liability was adjusted to fair value measured at the market price of the listed warrants.

#### (i) Fair Value Measurement

The accounting guidance for fair value measurements prioritizes the inputs used in measuring fair value into the following hierarchy:

Level 1 - Quoted prices (unadjusted) in active markets for identical assets or liabilities;

Level 2 – Inputs other than quoted prices included within Level 1 that are directly or indirectly observable:

Level 3 – Unobservable inputs in which little or no market activity exists, therefore requiring an entity to develop its own assumptions about the assumptions that market participants would use in pricing.

The fair value of our Warrant liability is initially based on level 2 (significant observable inputs) and at December 31, 2016 and 2015 is based on level 1, quoted prices (unadjusted).

### (j) Stock Based Compensation

Currently all stock option grants are valued using the Black-Scholes option-pricing model. IFRS 2 requires options granted to employees and others providing similar services to be measured at the fair value of goods or services received, unless that fair value cannot be estimated reliably. If the entity cannot estimate reliably the fair value of the goods or services received, the entity shall measure the value and the corresponding increase in equity, indirectly, by reference to the fair value of the equity instruments granted, which the Company does through the use of the Black-Scholes option- pricing model. The fair value of the options granted is as at the grant date.

Stock options granted to non-employees are valued using the Black-Scholes option-pricing model, rather than on the basis of the fair value of the services received. The Company does not have a history of performance with non-employees to reasonably estimate the fair value of the services to be received nor is there a definite expectation that their services will be required in the future.

In the event that the Company does have or establishes a history of performance with non-employees, options granted are valued on the basis of fair value of the services received.

# (k) Research and Development Costs

Research and development activities undertaken with the prospect of gaining new scientific or technical knowledge and understanding are expensed as incurred. The costs of developing new products are capitalized as deferred development costs, if they meet the development capitalization criteria under IFRS. These criteria include the ability to measure development costs reliably, the product is technically and commercially feasible, future economic benefits are probable and the Company intends to and has sufficient resources to complete development and to use or sell the asset. To date, all of the research and development costs have been expensed as all of the criteria for capitalization have not yet been met.

# 2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

# (l) Earnings (loss) per Share

Basic earnings (loss) per share are calculated using the weighted-average number of common shares outstanding during the year. Diluted earnings (loss) per share considers the dilutive impact of the exercise of 7,202,250 outstanding stock options (December 31, 2015 - 2,897,763) and 83,102,520 warrants, (December 31, 2015 - 41,934,399) as if the events had occurred at the beginning of the period or at a time of issuance, if later. Diluted loss per share has not been presented in the accompanying financial statements, as the effect would be anti-dilutive.

# (m) Investment tax credits

As a result of incurring scientific research and development expenditures, management has estimated that there will be non-refundable federal and refundable and nonrefundable provincial investment tax credits receivable following the completion of an audit process by tax authorities. Investment tax credits are recorded when received or when there is reasonable assurance that the credits will be realized. Upon recognition, amounts will be recorded as a reduction of research and development expenditures.

#### (n) Financial Instruments

The Company has designated its cash and cash equivalents, and amounts receivable as loans and receivables, which are measured at amortized cost. Amounts receivable include HST recoverable and other receivables. Accounts payable and accrued liabilities and other liabilities and charges are classified as other financial liabilities, which are measured at amortized cost.

### (o) Short term Employee Benefits

Short-term employee benefit obligations including Company paid medical, dental and life insurance plans, are measured on an undiscounted basis and are expensed as the related service is provided.

#### (p) Provisions

A provision is recognized, if as a result of a past event, the Company has a present legal or constructive obligation that can be estimated reliably and it is probable that an outflow of economic benefits will be required to settle the obligation. Presently the Company is not aware of the need for any material provisions nor has it recorded any except as otherwise disclosed in the financial statements.

#### (q) Lease payments

Payments made under operating leases are recognized as an expense on a straight line basis over the term of the lease. Lease incentives received, if any, are recognized as an integral part of the total lease expense over the term of the lease.

### (r) Standards, Amendments and Interpretations Not Yet Effective

Following is a listing of amendments, revisions and new IFRSs, which have been issued but are not effective until annual periods beginning after December 31, 2016.

IFRS 9 Financial Instruments, to replace IAS 39 and IFRIC 9, the effective date for which is fiscal periods beginning on or after January 1, 2018.

IFRS 15 Revenue from Contracts with Customers, to supersede the requirements in IAS 11, IAS 18, IFRIC 13, 15, 18 and SIC-31. The new standard is effective for annual periods beginning on or after January 1, 2018.

IFRS 16 Leases, to supersede the requirements in IAS 17, IFRIC 4, SIC-15 and SIC-17. The new standard is effective for annual periods beginning on or after January 1, 2019.

Management continues to assess the effect on the Company's future results and Financial Position as a result of these new standards.

# 3. FURNITURE AND EQUIPMENT

|                                  | Computer<br>Equipment | Furniture<br>and Fixtures | Leasehold<br>Improvements | Total         |
|----------------------------------|-----------------------|---------------------------|---------------------------|---------------|
| Cost                             | • •                   |                           | -                         |               |
| Balance at December 31, 2015     | \$<br>70,365          | \$<br>261,483             | \$<br>172,601             | \$<br>504,449 |
| Additions                        | <br>10,088            | <br>-                     | <br>-                     | <br>10,088    |
| Balance at December 31, 2016     | \$<br>80,453          | \$<br>261,483             | \$<br>172,601             | \$<br>514,537 |
| Amortization & Impairment Losses |                       |                           |                           |               |
| Balance at December 31, 2015     | \$<br>65,844          | \$<br>261,483             | \$<br>172,601             | \$<br>499,928 |
| Amortization for the year        | 5,259                 | -                         | -                         | 5,259         |
| Balance at December 31, 2016     | \$<br>71,103          | \$<br>261,483             | \$<br>172,601             | \$<br>505,187 |
|                                  |                       |                           |                           |               |
| Net Book Value                   |                       |                           |                           |               |
| At December 31, 2015             | \$<br>4,521           | \$<br>-                   | \$<br>-                   | \$<br>4,521   |
| At December 31, 2016             | \$<br>9,350           | \$<br>                    | \$<br>                    | \$<br>9,350   |
| 4. <u>PATENT RIGHTS</u>          |                       |                           |                           |               |
| Cost                             |                       |                           |                           |               |
| Balance at December 31, 2015     | \$<br>621,782         |                           |                           |               |
| Additions                        | 154,935               |                           |                           |               |
| Balance at December 31, 2016     | \$<br>776,717         |                           |                           |               |
| Amortization & Impairment Losses |                       |                           |                           |               |
| Balance at December 31, 2015     | \$<br>173,223         |                           |                           |               |
| Amortization for the year        | <br>19,381            |                           |                           |               |
| Balance at December 31, 2016     | \$<br>192,604         |                           |                           |               |
| Net Book Value                   |                       |                           |                           |               |
| At December 31, 2015             | \$<br>448,559         |                           |                           |               |
| At December 31, 2016             | \$<br>584,113         |                           |                           |               |
|                                  |                       |                           |                           | 9             |

### 5. SHARE CAPITAL

| a) | Authorized: | unlimited number of common shares, no par value |  |  |  |  |  |
|----|-------------|-------------------------------------------------|--|--|--|--|--|
|    | Issued:     | 166,511,446 (December 31, 2015: 116,457,486)    |  |  |  |  |  |

Exercise prices of units, warrants and options are presented in Canadian currency as they are exercisable in Canadian dollars.

On October 27, 2016 the over-allotment option to the Company's September 20, 2016 offering of 17,083,333 units at a price of CDN \$0.60 was partially exercised and the Company sold an additional 2,030,000 Units at the Offering Price of CDN \$0.60 for additional gross proceed of \$909,846 (\$845,181 net of closing costs including cash commission of \$63,689 paid in accordance with the terms of the agency agreement). Each unit comprised of one common share of Titan and one warrant. Each whole warrant entitles its holder to purchase one additional common share of Titan for CDN \$0.75 and will expire October 27, 2021. The warrants were valued at \$121,313 based on the market value at the time and the balance of \$788,533 was allocated to common shares.

Pursuant to the agency agreement, in addition to the cash commission paid to the Agent, broker warrants were issued to purchase 142,100 units. Each broker warrant entitles the holder thereof to acquire one common share of the Company at the price of CDN \$0.60 for a period of 24 months following the closing date.

On September 20, 2016 Titan completed an offering of securities pursuant to an agency agreement dated September 13, 2016 between the Company, and Bloom Burton & Co. Limited and Echelon Wealth Partners Inc. (the "Agents"). The Company sold 17,083,333 units under the Offering at a price of CDN \$0.60 per Unit for gross proceeds of \$7,749,000 (\$6,951,987 net of closing costs including cash commission of \$528,668 paid in accordance with the terms of the agency agreement). Each unit comprised of one common share of Titan and one warrant. Each whole warrant entitles its holder to purchase one additional common share of Titan for CDN \$0.75 and will expire September 20, 2021. The warrants were valued at \$1,162,350 using a comparable warrant quoted in an active market, adjusted for differences in the terms of warrant and the balance of \$6,586,650 was allocated to common shares.

Pursuant to the agency agreement, in addition to the cash commission paid to the Agent, broker warrants were issued to purchase 1,165,494 units. Each broker warrant entitles the holder thereof to acquire one common share of the Company at the price of CDN\$0.60 for a period of 24 months following the closing date.

On April 14, 2016 the over-allotment option to the Company's March 31, 2016 offering of 15,054,940 units at a price of CDN \$1.00 per Unit was exercised in full and the Company sold an additional 2,258,241 Units at the Offering Price of CDN \$1.00 for additional gross proceeds of \$1,759,396 (\$1,633,407 net of closing costs including cash commission of \$123,158 paid in accordance with the terms of the agency agreement). Each unit comprised of one common share of Titan and one warrant. Each whole warrant entitles its holder to purchase one additional common share of Titan for CDN\$1.20 and will expire April 14, 2021. The warrants were valued at \$290,300 based on the market value at the time and the balance of \$1,469,095 was allocated to common shares.

Pursuant to the agency agreement, in addition to the cash commission paid to the Agent, broker warrants were issued to purchase 158,076 units. Each broker warrant entitles the holder thereof to acquire one unit of the Company at the price of CDN\$1.00 for a period of 24 months following the closing date. Each unit consists one common share of the Company and one common share purchase warrant. Each purchase warrant entitles the holder thereof to acquire one Share of the Company at an exercise price of CDN \$1.20 which expire April 14, 2021.

On March 31, 2016 Titan completed an offering of securities pursuant to an agency agreement dated March 24, 2016 between the Company and Bloom Burton & Co. Limited (the "Agent"). The Company sold 15,054,940 units under the Offering price of CDN\$1.00 per Unit for gross proceeds of approximately \$11,607,359 (\$10,571,919 net of closing costs including cash commission of \$796,324 paid in accordance with the terms of the agency agreement). Each unit comprised of one common share of Titan and one warrant. Each whole warrant entitles its holder to purchase one additional common share of Titan for CDN\$1.20 and will expire March 31, 2021. The warrants were valued at \$1,741,104 using a comparable warrant quoted in an active market, adjusted for differences in the terms of warrant and the balance of \$9,866,255 was allocated to common shares.

Pursuant to the agency agreement, in addition to the cash commission paid to the Agent, broker warrants were issued to purchase 1,032,845 units. Each broker warrant entitles the holder thereof to acquire one unit of the Company at the price of CDN\$1.00 for a period of 24 months following the closing date. Each unit consists of one common share of the Company and one common share purchase warrant. Each purchase warrant entitles the holder thereof to acquire one Share of the Company at an exercise price of CDN \$1.20 which expire March 31, 2021.

On February 23, 2016 the over-allotment option in connection with the February 12, 2016 completed public offering of 11,670,818 units had been exercised in full. The company sold an additional 1,746,789 units at the offering price of CDN\$0.90 per Unit for gross proceeds to Titan of approximately \$1,139,937 (\$1,029,605 net of closing costs including cash commission of \$79,796 paid in accordance with the terms of the agency agreement). Each unit consists of one common share of the Company and one common share purchase warrant. Each whole warrant entitles the holder thereof to acquire one Share of the Company at an exercise price of CDN \$1.00 which expire February 23, 2021. The warrants were valued at \$215,321 based on the market value at the time and the balance of \$924,616 was allocated to common shares.

On February 12, 2016 Titan completed an offering of securitiesmade pursuant to an agency agreement dated February 9, 2016 between the Company and Bloom Burton & Co. Limited (the "Agent"). The Company sold 11,670,818 units under the Offering at a price of CDN \$0.90 per Unit for gross proceeds of approximately \$7,592,101 (\$6,844,046 net of closing costs including cash commission of \$516,622 paid in accordance with the terms of the agency agreement). Each Unit consists of one common share of the Company and one common share purchase warrant. Each whole warrant entitles the holder thereof to acquire one Share of the Company at an exercise price of CDN \$1.00 which expire February 12, 2021. The warrants were valued at \$1,518,420 using a comparable warrant quoted in an active market, adjusted for differences in the terms of warrant and the balance of \$6,073,681 was allocated to common shares.

Pursuant to the agency agreement, in addition to the cash commission paid to the Agent, broker warrants were issued to purchase 916,443 units. Each broker warrant entitles the holder thereof to acquire one unit of the Company at the price of CDN\$0.90 for a period of 24 months following the closing date. Each unit consists of one common share of the Company and one common share purchase warrant. Each purchase warrant entitles the holder to acquire one common share of the Company at an exercise price of CDN\$1.00 for a period of 60 months from the date of closing.

On November 23, 2015 Titan closed a private placement of 4,290,280 common shares of Titan at a subscription price of CDN\$1.23 per common share for gross proceeds of \$4,000,000 with Longtai Medical Inc. Longtai is the Canadian subsidiary of Ningbo Long Hengtai International Trade Co. Ltd., a corporation incorporated under the laws of China with annual sales exceeding \$100,000,000. Longtai is an importer and distributer of high end medical devices for multinational companies.

Under the Agreement Titan has granted to Longtai exclusive rights to negotiate for an exclusive marketing, sales and distribution agreement for Titan's SPORT<sup>TM</sup> Surgical System in the Asia Pacific region for a period of 183 days. Longtai has paid to Titan \$2,000,000 as a deposit toward the Distributorship Agreement, which shall be repaid to Longtai in the event that the agreement is not entered into within the 183 day period. On August 24, 2016 the parties agreed to modify their previous three month extension, to monthly progress reviews. Longtai will concurrently with the signing of the Distributorship Agreement, subscribe for and purchase an additional \$4,000,000 worth of Common Shares at a share issue price equal to the 5-day Volume Weighted Average Price (VWAP) (less a 12.5% discount). If the Distributorship Agreement is signed and the second \$4,000,000 private placement is completed, Titan will retain \$1,400,000 of the Distributorship Deposit and repay \$600,000 to Longtai.

On November 16, 2015 Titan completed an offering of securities pursuant to an agency agreement dated November 6, 2015 between the Company and Octagon Capital Corporation (the "Agent"). The offering consisted of 8,130,081 units and full over-allotment of 1,219,512 units for a total of 9,349,593 units at a price of CDN\$1.23 per unit for gross proceeds of \$8,611,901 (\$7,629,360 net of closing costs including cash commission of \$586,660 paid in accordance with the terms of the agency agreement). Each unit comprised of one common share of Titan and 0.75 of a common share purchase warrant. Each whole warrant entitles its holder to purchase one additional common share of Titan for CDN\$1.60 which will expire November 16, 2020. The warrants were valued at \$770,177 using a comparable warrant quoted in an active market, adjusted for differences in the terms of warrant and the balance of \$7,841,724 was allocate to common shares.

# b) Warrants, Stock Options and Compensation Options

Subject to shareholder approval, Titan has reserved and set aside up to 10% of the issued and outstanding shares of Titan for granting of options to employees, officers, consultants and advisors. At December 31, 2016, 9,448,895 common shares (December 31, 2015: 8,747,986) were available for issue in accordance with the Company's stock option plan. The terms of these options are determined by the Board of Directors. A summary of the status of the Company's outstanding stock options as of December 31, 2015 and changes during the periods ended on those dates is presented in the following table:

|                    |                            | Year Ended<br>December 31, 2016 |                                 |           | Year Ended<br>December 31, 2015 |                                    |  |
|--------------------|----------------------------|---------------------------------|---------------------------------|-----------|---------------------------------|------------------------------------|--|
|                    | Number of<br>stock options |                                 | options exercise price stock op |           | V                               | Veighted-average<br>exercise price |  |
|                    |                            |                                 | (CDN)                           |           |                                 | (CDN)                              |  |
| Balance, beginning | 2,897,763                  | \$                              | 1.20                            | 2,229,604 | \$                              | 1.14                               |  |
| Granted            | 4,660,117                  | \$                              | 1.01                            | 974,159   | \$                              | 1.52                               |  |
| Exercised          | (9,000)                    | \$                              | 0.56                            | (206,000) | \$                              | 0.45                               |  |
| Expired/forfeited  | (346,630)                  | \$                              | 1.56                            | (100,000) | \$                              | 1.67                               |  |
| Balance, ending    | 7,202,250                  | \$                              | 1.10                            | 2,897,763 | \$                              | 1.20                               |  |

The weighted-average remaining contractual life and weighted-average exercise price of options outstanding and of options exercisable as at December 31, 2016 are as follows:

|             | Options Outstanding |    |                               |                                                   | Options Exercisab |    |                                        |  |
|-------------|---------------------|----|-------------------------------|---------------------------------------------------|-------------------|----|----------------------------------------|--|
| Exercise    | Number              |    | Weighted-<br>average exercise | Weighted-average<br>remaining<br>contractual life | Number            |    | Weighted-<br>average<br>exercise price |  |
| price (CDN) | outstanding         |    | price (CDN)                   | (years)                                           | exercisable       |    | (CDN)                                  |  |
| \$0.56      | 663,368             | \$ | 0.56                          | 1.59                                              | 663,368           | \$ | 0.56                                   |  |
| \$0.83      | 49,591              | \$ | 0.83                          | 1.22                                              | 49,591            | \$ | 0.83                                   |  |
| \$0.96      | 305,107             | \$ | 0.96                          | 1.97                                              | 305,107           | \$ | 0.96                                   |  |
| \$1.00      | 4,015,825           | \$ | 1.00                          | 4.50                                              | 1,129,206         | \$ | 1.00                                   |  |
| \$1.02      | 233,045             | \$ | 1.02                          | 3.98                                              | 82,691            | \$ | 1.02                                   |  |
| \$1.08      | 644,292             | \$ | 1.08                          | 4.08                                              | 644,292           | \$ | 1.08                                   |  |
| \$1.39      | 19,746              | \$ | 1.39                          | 2.96                                              | 19,746            | \$ | 1.39                                   |  |
| \$1.39      | 47,532              | \$ | 1.39                          | 0.37                                              | 47,532            | \$ | 1.39                                   |  |
| \$1.49      | 102,759             | \$ | 1.49                          | 0.12                                              | 102,759           | \$ | 1.49                                   |  |
| \$1.51      | 16,796              | \$ | 1.51                          | 3.61                                              | 16,796            | \$ | 1.51                                   |  |
| \$1.72      | 585,368             | \$ | 1.72                          | 3.44                                              | 333,597           | \$ | 1.72                                   |  |
| \$1.76      | 106,096             | \$ | 1.76                          | 2.18                                              | 106,096           | \$ | 1.72                                   |  |
| \$1.94      | 412,725             | \$ | 1.94                          | 2.39                                              | 325,775           | \$ | 1.94                                   |  |
|             | 7,202,250           | \$ | 1.10                          | 2.49                                              | 3,826,556         | \$ | 1.12                                   |  |
|             |                     |    |                               |                                                   |                   |    |                                        |  |

Options are granted to Directors, Officers, Employees and Consultants at various times. Options are to be settled by physical delivery of shares.

Stock options granted to non-employees, officers or directors are valued using the Black-Scholes pricing model, rather than on the basis of the fair value of the services received.

The Company does on occasion use the services of consultants. Options granted in these situations are valued on the basis of fair value of the services received.

| Grant date/Person entitled                                                 | Number of Options | Vesting Conditions                                                                 | Contractual life of Options |  |  |
|----------------------------------------------------------------------------|-------------------|------------------------------------------------------------------------------------|-----------------------------|--|--|
| June 9, 2015, option grants to<br>Directors, Officers and Consultants      | 207,712           | immediately                                                                        | 5 years                     |  |  |
| June 9, 2015, option grants to<br>Employees                                | 477,039           | Vest as to 1/3 of the total number of Options granted, every year from Option Date | 5 years                     |  |  |
| August 11, 2015, option grants to<br>Consultants                           | 16,796            |                                                                                    | 5 years                     |  |  |
| December 23, 2015, option grants to<br>Directors, Officers and Consultants | 82,691            | immediately                                                                        | 5 years                     |  |  |
| December 23, 2015, option grants to<br>Employees                           | 189,920           | Vest as to 1/3 of the total number of Options granted, every year from Option Date | 5 years                     |  |  |
| January 27, 2016, option grants to<br>Employees and Consultants            | 644,292           | immediately                                                                        | 5 years                     |  |  |
| August 24, 2016, options granted to<br>Directors and Consultants           | 1,129,206         | immediately                                                                        | 5 years                     |  |  |
| August 24, 2016, options granted to<br>Employees                           | 2,886,619         | Vest as to 1/3 of the total number of Options granted, every year from Option Date | 5 years                     |  |  |

# Inputs for Measurement of Grant Date Fair Values

The grant date fair value of all share based payment plans was measured based on the Black-Scholes formula. Expected volatility was estimated by considering historic average share price volatility. The inputs used in the measurement of fair values at grant date of the share based option plan are as follows:

#### Directors, Management, Employees, Medical Advisors and Consultants

|                                 | 2016                | 2015                |
|---------------------------------|---------------------|---------------------|
| Fair Value at grant date (CDN)  | \$<br>0.28 - \$0.52 | \$<br>0.49 - \$0.81 |
| Share price at grant date (CDN) | \$<br>0.68 - \$1.08 | \$<br>1.02 - \$1.72 |
| Exercise price (CDN)            | \$<br>1.00 - \$1.08 | \$<br>1.02 - \$1.72 |
| Expected Volatility             | 73.34% - 79.67%     | 71.83% - 73.84%     |
| Option Life                     | 3 years             | 3 years             |
| Expected dividends              | nil                 | nil                 |
| Risk-free interest rate         | 0.44% - 057%        | 0.44% - 0.66%       |
| (based on government bonds)     |                     |                     |

The following is a summary of outstanding warrants included in Shareholder's Equity as at December 31, 2016 and December 31, 2015 and changes during the periods then ended.

|                                                                                   | December 31, 2016     |              | December<br>31, 2015  |             |
|-----------------------------------------------------------------------------------|-----------------------|--------------|-----------------------|-------------|
|                                                                                   | Number of<br>Warrants | Amount       | Number of<br>Warrants | Amount      |
| Opening Balance                                                                   | 14,257,434            | \$ 4,044,192 | 17,963,334 \$         | 6,014,360   |
| Exercised during the period<br>Exercise Price of CDN\$1.25                        |                       |              |                       |             |
| Expiry March 13, 2018                                                             | -                     | -            | (40,000)              | (5,641)     |
| Expired during the period<br>Exercise Price CDN\$1.75<br>Expiry December 22, 2016 | (3,484,500)           | (1,310,451)  | -                     | -           |
| Expired during the period<br>Exercise Price CDN\$2.00                             | (5.101.500)           | (1.055.041)  |                       |             |
| Expiry June 21, 2016                                                              | (5,121,500)           | (1,877,941)  |                       |             |
| Expired during the period<br>Exercise Price CDN\$1.85                             |                       |              |                       |             |
| Expiry December 10, 2015                                                          |                       |              | (3,665,900)           | (1,964,527) |
| Ending Balance                                                                    | 5,651,434             | \$ 855,800   | 14,257,434 \$         | 4,044,192   |
|                                                                                   |                       |              |                       | 14          |

# 6. WARRANT LIABILTY

|                                                | December<br>31, 2016<br>Number of<br>Warrants | -<br>Amount     | December<br>31, 2015<br>Number of<br>Warrants | Amount          |
|------------------------------------------------|-----------------------------------------------|-----------------|-----------------------------------------------|-----------------|
| Balance, beginning                             | 27,676,965                                    | \$<br>2,137,751 | 20,664,770                                    | \$<br>2,997,963 |
| Issue of warrants expiring November 16, 2020   | -                                             | -               | 7,012,195                                     | 770,177         |
| Issue of warrants expiring, February 12, 2021  | 11,670,818                                    | 1,518,420       | -                                             | -               |
| Issue of warrants expiring, February 23, 2021  | 1,746,789                                     | 215,321         | -                                             | -               |
| Issue of warrants expiring, March 31, 2021     | 15,054,940                                    | 1,741,104       | -                                             | -               |
| Issue of warrants expiring, April 14,2021      | 2,258,241                                     | 290,300         | -                                             | -               |
| Issue of warrants expiring, September 20, 2021 | 17,083,333                                    | 1,162,350       | -                                             | -               |
| Issue of warrants expiring, October 27, 2021   | 2,030,000                                     | 121,313         | -                                             | -               |
| Warrants exercised during the year             | (70,000)                                      | (9,654)         | -                                             | -               |
| Foreign exchange adjustment                    | -                                             | 138,799         | -                                             | (487,513)       |
| Fair value adjustment                          | -                                             | (4,950,013)     | -                                             | (1,142,876)     |
| Balance, ending                                | 77,451,086                                    | \$<br>2,365,691 | 27,676,965                                    | \$<br>2,137,751 |

In addition to the warrants listed above, at December 31, 2016, the Company has issued and outstanding, 3,414,958 broker unit warrants expiring between February 23, 2018 and October 27, 2018.

# 7. INCOME TAXES

# a) Current Income Taxes

A reconciliation of combined federal and provincial corporate income taxes at the Company's effective tax rate of 26.5% (2015 - 26.5%) follows.

|                                                                                                             | December 31,<br>2016     | December 31,<br>2015 |
|-------------------------------------------------------------------------------------------------------------|--------------------------|----------------------|
| Net loss before income taxes                                                                                | \$<br>(23,323,496)       | \$ (41,413,28        |
| Income taxes at statutory rates                                                                             | \$<br>(6,180,726)        | \$ (10,974,5)        |
| Tax effect of expenses not deductible for income tax purposes:<br>Tax/FX rate changes and other adjustments | (39,497)                 | (185,02              |
| Permanent differences<br>Unrecognized share issue costs                                                     | (1,040,695)<br>(637,468) | (316,12)<br>(269,98  |
| Total tax assets                                                                                            | <br>(7,898,386)          | (11,745,65           |
| Tax assets not recognized                                                                                   | 7,898,386                | 11,745,65            |
|                                                                                                             | \$<br>-                  | \$                   |
|                                                                                                             |                          |                      |

#### 7. **INCOME TAXES** (continued)

#### b) **Deferred Income Taxes**

Deferred income tax assets and liabilities result primarily from differences in recognition of certain timing differences that give rise to the Company's future tax assets (liabilities) and are as follows:

|                              | D  | December 31,<br>2016 |    | ecember 31,<br>2015 |
|------------------------------|----|----------------------|----|---------------------|
| Non-capital losses           | \$ | 31,620,196           | \$ | 23,240,604          |
| Qualifying research          |    |                      |    |                     |
| and development expenditures |    | 1,663,229            |    | 2,501,449           |
| Share issue costs and other  |    | 1,277,488            |    | 922,184             |
| Total tax assets             |    | 34,560,913           |    | 26,664,237          |
|                              |    |                      |    |                     |
| Tax assets not recognized    |    | (34,560,913)         |    | (26,664,237)        |
| Net deferred tax assets      | \$ | -                    | \$ | _                   |

In assessing the realizability of deferred tax assets, management considers whether it is probable that some portion or all of the deferred tax assets will not be realized. The ultimate realization of deferred tax assets is dependent upon the generation of future taxable income during the periods in which those temporary differences become deductible. Management considers the scheduled reversal of deferred tax liabilities, projected future taxable income and tax planning strategies in making this assessment. Management, based on IFRS criteria, has determined, at this time, not to recognize its deferred tax assets, as it is not considered probable that future tax benefits will be realized.

#### c) Losses carried forward

The Company has non-capital losses of approximately \$119,321,495 available to reduce future income taxes. The non-capital losses expire approximately as follows:

| 2027 | \$ 786,557     |
|------|----------------|
| 2028 | 169,954        |
| 2029 | 186,708        |
| 2030 | 2,003,594      |
| 2031 | 12,735,836     |
| 2032 | 6,517,436      |
| 2033 | 8,856,497      |
| 2034 | 15,819,741     |
| 2035 | 43,934,918     |
| 2036 | 28,310,254     |
|      | \$ 119,321,495 |

The Company has accumulated Qualifying Research and Development expenses of \$6,276,334 as a result of prior years research and development. These expenditures may be carried forward indefinitely and used to reduce taxable income in future years.

As a result of a recent Canada Revenue Agency (CRA) audit completed in the second quarter of 2016, regarding Titan's 2011 Amadeus SR&ED claim, the 2011 loss of \$9,423,694 has been adjusted to \$12,735,836 and the qualifying SR&ED expenditures has been revised from \$9,439,430 to \$6,276,334. The amounts regarding the foreign content made in the claim has been disallowed by CRA. Titan has appealed this decision and is awaiting the outcome.

### 7. *INCOME TAXES* (continued)

### d) Investment Tax Credits

At December 31, 2016, the Company has \$1,354,364 (2015 - \$2,021,091) of unclaimed investment tax credits available to reduce federal income taxes payable in future years. If not utilized, these investment tax credits will start expiring in 2028. The 2016 amount has been adjusted to reflect changes due to the aforementioned CRA audit.

At December 31, 2016, the Company has \$282,002 (2015 – \$425,140) of unclaimed Ontario Research and Development Tax Credit (ORDTC) available to reduce Ontario income taxes payable in future years. If not utilized, these ORDTC will start expiring in 2029. The 2016 amount has been adjusted to reflect changes due to the aforementioned CRA audit.

# 8. COMMITMENTS

Effective July 15, 2011, the Company entered into a lease for premises in Ancaster, Ontario for its research and development program.

Effective February 1, 2012, the Company exercised its option to lease an additional 4,477 square feet adjacent to its existing research and development facilities in Ancaster, Ontario. The additional space is under the same terms and conditions as the original lease, dated July 15, 2011.

Effective August 22, 2013, 3,957 square feet of this additional space has been sublet for a term of 5.5 years at a monthly rent of \$2,325 per month to July 31, 2016 and \$2,635 per month thereafter. Effective April 30, 2015 the Company entered into a lease surrender agreement with the landlord for initial space leased on July 15, 2011. As a result, the Company now has only the space leased February 1, 2012 and it has been sublet.

Effective January 26, 2016 the Company entered into a twelve month lease at its corporate office located at 170 University Avenue, Toronto Ontario, at an annual rental of CDN \$116,875. On November 25, 2016 a new lease agreement was signed, to commence February 1, 2017 at a monthly rent of CDN \$9,740. The new agreement which includes a 60 days' termination notice, expires January 31, 2018.

As a part of its program of research and development around the SPORT Surgical System, the Company has outsourced certain aspects of the design and development to a U.S. based technology and development company. At December 31, 2016, \$1,984,978 in purchase orders remains outstanding. The Company also has on deposit with this same U.S. supplier \$906,010 to be applied against future invoices.

During the year the Company issued further purchase orders to an additional U.S. supplier to provide further design and engineering services. At December 31, 2016, \$2,696,801 in purchase orders remains outstanding. The Company also has on deposit with this same U.S. supplier \$1,110,638 to be applied against future invoices.

The Company has entered into a number of licensing agreements with suppliers and Universities that will require payments to be made to them, in future years, based on the achievement, by the Company, of certain milestones which could total up to \$897,500. Subsequently, following commercialization, royalty payments will be required, based on a percentage of annual net sales of the licensed product, in the range of 4% to 6% per royalty agreement.

The Company has entered into a number of licensing agreements with educational and medical institutions as well as suppliers, for the development and provision of items to be incorporated into the SPORT Surgical System. These agreements require Titan to make periodic payments in 2017 and beyond.

| 2017 | \$<br>80,000  |
|------|---------------|
|      | ,             |
| 2018 | \$<br>5,000   |
| 2019 | \$<br>5,000   |
| 2020 | \$<br>205,000 |
| 2021 | \$<br>180,000 |
| 2022 |               |

2022 and thereafter \$5,000 per year

# 9. RELATED PARTY TRANSACTIONS

During the year ended December 31, 2016, transactions between the Company and directors, officers and other related parties were related to compensation matters in the normal course of operations and are measured at the exchange amount, which is the amount of consideration established and agreed to by the related parties.

Compensation to the Executive Officers amounted to \$967,363 for the year ended December 31, 2016 compared to \$935,242 for the same period in 2015.

In the second quarter of 2015, Titan entered into an Option Agreement ("Agreement") with a company that has developed a patent for Markerless Tracking of Robotic Surgical Tools that can be incorporated into Titan's SPORT Surgical System. Under the terms of the Agreement Titan paid to the Company a non-refundable Option Fee of \$300,000 as follows:

\$100,000 upon signing the Agreement \$100,000 January 2, 2016 (paid) \$100,000 October 1, 2016 (paid)

In addition, Titan had the right at any time up to and including February 2, 2017, to exercise the Option by paying a fee of \$1.3 million for those rights. This License Fee would be due and payable upon execution of the License Agreement. Titan has since given notice that it would not exercise the option.

A former member of Titan's Senior Management is also co-inventor of the Markerless Tracking of Robotic Surgical Tools technology, co-founder, a Director, member of the senior management team, and a significant shareholder of that company.

During the year, an individual related to a former senior executive provided consulting services in support of marketing efforts for the European market. Annual compensation of \$148,320 plus reimbursement of appropriate expenses was paid to the individual. This individual is no longer employed by the Company.

Officers and Directors of the Company control approximately 3.98% of the Company.

|                           | December 31, 2016 | Γ    | December 31, 2015 |      |
|---------------------------|-------------------|------|-------------------|------|
|                           | BASE              | %    | BASE              | %    |
| John Barker               | 250,632           | 0.15 | 230,632           | 0.20 |
| Martin Bernholtz          | 1,571,500         | 0.94 | 1,380,500         | 1.19 |
| Dennis Fowler             | 0                 | 0.00 | 73,000            | 0.06 |
| John Hargrove             | 298,200           | 0.18 | 298,200           | 0.26 |
| Stephen Randall           | 102,800           | 0.06 | 102,800           | 0.09 |
| Reiza Rayman              | 4,357,117         | 2.62 | 4,357,117         | 3.74 |
| John Valvo                | 25,000            | 0.02 | 25,000            | 0.02 |
| Bruce Wolff               | 17,552            | 0.01 | 17,552            | 0.01 |
| TOTAL                     | 6,622,801         | 3.98 | 6,484,801         | 5.57 |
| Common Shares Outstanding | 166,511,446       | 100% | 116,457,486       | 100% |

# 10. FINANCIAL INSTRUMENTS

The Company's financial instruments consist of cash and cash equivalents, amounts receivable, accounts payable and accrued liabilities, warrant liability, and other liabilities and charges. The fair value of these financial instruments approximates their carrying values, unless otherwise noted, due to the short maturities of these instruments or the discount rate applied.

The Company's risk exposures and their impact on the Company's financial instruments are summarized below:

#### (a) Credit risk

The Company's credit risk is primarily attributable to cash and cash equivalents, short-term investments and amounts receivable. The Company has no significant concentration of credit risk arising from operations. Cash and cash equivalents are held with reputable financial institutions, from which management believes the risk of loss to be remote. Financial instruments included in amounts receivable consists of HST tax due from the Federal Government of Canada and interest receivable from money market funds. Management believes that the credit risk concentration with respect to financial instruments included in amounts receivable is remote.

# (b) Liquidity risk

The Company's approach to managing liquidity risk is to ensure that it will have sufficient liquidity to meet liabilities when due and when appropriate will scale back its operations. As at December 31, 2016, the Company had cash and cash equivalents of 4,339,911 (December 31, 2015 - 1,197,573) to settle current liabilities of 4,232,201 (December 31, 2015 - 1,159,829) excluding warrant liabilities of 2,365,691 (December 31, 2015 - 2,137,751).

The Company currently does not generate any revenue or income (other than interest income on its cash balances) and accordingly, it is (and it will be for the foreseeable future) dependent primarily upon equity financing for any additional funding required for development and operating expenses.

The ability of the Company to arrange such financing in the future will depend in part upon prevailing capital market conditions and the business success of the Company. There can be no assurance that the Company will be successful in its efforts to arrange additional financing on terms satisfactory to the Company. If additional financing is raised by the issuance of shares or convertible securities from treasury, control of the Company may change and shareholders may suffer additional dilution. If adequate funds are not available, or are not available on acceptable terms, the Company may not be able to take advantage of opportunities, or otherwise to continue its technology development program at its current pace.

The Company expects that approximately US \$28.0 million, inclusive of the offering completed subsequent to the year end, in incremental funding will be required by the end of 2017 to maintain its currently anticipated pace of product development. If additional funding is not available, the pace of the Company's development plan may be reduced.

### (c) Market risk

Market risk is the risk of loss that may arise from changes in market factors such as interest rates and foreign exchange rates.

(i) Interest rate risk

The Company has cash balances and no interest-bearing debt. The Company's current policy is to invest excess cash in one day cashable high interest savings accounts. The Company periodically monitors the investments it makes and is satisfied with the credit risk of its bank.

(ii) Foreign currency risk

The Company's functional currency is the U.S. dollar. Expenditures transacted in foreign currency are converted to U.S. dollars at the rate in effect when the transaction is initially booked. The gain or loss on exchange, when the transaction is settled, is booked to the Statement of Net and Comprehensive Loss. Management acknowledges that there is a foreign exchange risk derived from currency conversion and believes this risk to be low as the company now maintains a minimum balance of Canadian dollars.

## 10. FINANCIAL INSTRUMENTS (continued)

# (d) Sensitivity analysis

Cash equivalents include fully redeemable term deposits which mature within 90 days. Sensitivity to a plus or minus 1% change in interest rates could affect annual net loss by \$42,115 (December 31, 2015 - \$107,798) based on the current level of cash invested in cash equivalents.

A strengthening of the U.S. dollars at December 31, 2016, as indicated below, against Canadian current assets and accounts payable and accrued liabilities including warrant liability of CDN\$178,516 and \$3,529,278 respectively (December 31, 2015 - \$389,714 and \$3,339,362) would result in increased equity and an increased profit for the period of \$124,782 (December 31, 2015, increased equity and an increase profit of \$108,724) as shown on the chart below. This analysis is based on foreign currency exchange rate variances that the Company considers to be reasonably possible at the end of the reporting period. The analysis assumes that all other variables, in particular interest rates, remain constant. The analysis is performed on the same basis for December 31, 2015.

| December 31, 2016                            | Profit or (Loss) |
|----------------------------------------------|------------------|
| 5% strengthening                             |                  |
| CDN current assets                           | \$<br>(6,648)    |
| CDN Accounts payable and accrued liabilities | \$<br>131,430    |
|                                              | \$<br>124,782    |
| December 31, 2015                            |                  |
| 5% strengthening                             |                  |
| CDN current assets                           | \$<br>(14,078)   |
| CDN Accounts payable and accrued liabilities | \$<br>122,802    |

A weakening of the U.S. dollar against the Canadian dollar at December 31, 2016 and December 31, 2015 would have had the equal but opposite effect on the above currencies to the amounts shown above, on the basis that all other variables remain constant.

# 11. <u>SEGMENTED REPORTING</u>

The Company operates in a single reportable operating segment – the research and development of SPORT<sup>TM</sup>, the next generation of surgical robotic platform.

# 12. <u>CAPITAL MANAGEMENT</u>

The Company's capital is composed of shareholders' equity. The Company manages its capital structure and makes adjustments to it, based on the funds available to the Company, in order to support the development of its SPORT<sup>TM</sup> Surgical Platform (SPORT<sup>TM</sup>). The Board of Directors does not establish quantitative return on capital criteria for management, but rather relies on the expertise of the Company's management to sustain future development of the SPORT<sup>TM</sup>. The Company has further progress to make in the development of the SPORT<sup>TM</sup>, and anticipates that the cost of completion will exceed its current resources. Accordingly, the Company will be dependent on external financing to fund a portion of its future activities. In order to carry out the completion of the SPORT<sup>TM</sup> and pay for administrative costs, the Company will spend its existing working capital and raise additional amounts as needed. Management reviews its capital management approach on an ongoing basis and believes that this approach, given the relative size of the Company, is reasonable. There were no changes in the Company's approach to capital management during the year ended December 31, 2016. The Company is not subject to externally imposed capital requirements.

108,724

# **13.** EVENTS AFTER THE REPORTING DATE

Effective January 3, 2017, David J. McNally was appointed Chief Executive Officer and a Director of the Company.

Effective January 9, 2017, the then current President of the Company stepped down as President. David McNally has assumed the role of President, effective immediately.

On January 17, 2017, the company granted 8,325,572 incentive stock options to a Director and Officer of the Company pursuant to its incentive stock option plan. These stock options vest over four year and are exercisable until January 17, 2024 at a price of CDN \$0.57.

On February 7, 2017, the company granted 500,000 incentive stock options to a Vice President of Research and Development of the Company pursuant to its incentive stock option plan. These stock options vest over four year and are exercisable until February 7, 2024 at a price of CDN \$0.50.

On March 16, 2017 Titan completed an offering of securities made pursuant to an agency agreement dated March 10, 2017 between the Company and Bloom Burton Securities Inc. (the "Agent"). The Company sold 21,467,200 units under the Offering at a price of CDN\$0.35 per Unit for gross proceeds of approximately \$5,680,221 (\$5,100,880 net of closing cost including cash commission of \$394,316 paid in accordance with the terms of the agency agreement). Each Unit consists of one Common Share of the Company and (i) one-half of one Common Share purchase warrant, each whole warrant entitles the holder thereof to acquire one Share of the Company at an exercise price of CDN \$0.40 which expire March 16, 2019, and (ii) one-half of one Common Share purchase warrant, each whole warrant entitles the holder thereof to acquire on Share of the Company at an exercise price of CDN \$0.50 which expire March 16, 2021.

Pursuant to the agency agreement, in addition to the cash commission paid to the Agent, broker warrants were issued to purchase 1,500,155 units. Each broker warrant entitles the holder thereof to acquire one Share of the Company at a price of CDN \$0.35 for a period of 24 months following the closing date.



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### Titan Medical Finalizes User Requirements for 1st Generation Robotic Surgical System; Reiterates 2017 and 2018 Development Milestones Leading to FDA 510(k) Submission

TORONTO, ON, March 23, 2017 - Titan Medical Inc. (TSX: TMD) (OTCQX: TITXF), reported today that the first milestone for 2017, finalizing user requirements for the single port robotic surgical system, has been achieved slightly ahead of schedule. The Company also reiterated the development milestones Titan is pursuing for its single-port robotic surgical system for application in minimally invasive surgery (MIS). The milestones and timeline are designed to lead to Titan's 510(k) submission to the US Food & Drug Administration (FDA) for clearance to market.

The remaining 2017 milestones are as follow:

- Select and confirm two US and one European strategic facilities for pre -clinical studies
- Test and evaluate performance of subsystems of existing engineering verification (EV) units
- Complete initial formative human factors studies that follow previous heuristic studies
- Initiate design changes based on subsystem performance and human factors evaluation
- Implement design changes and retest system and subsystems
- Update Design History File and documentation for relevant modules of the Company's Quality Management System ("QMS")
- Complete initial requirements and architecture for simulation software and training program design
- Complete and report on pre-clinical studies at strategic facilities in US and Europe
- Confirm FDA and CE Mark pathways in coordination with regulatory authorities

### 2018 milestones:

- Complete software development, system design and update Design History File for regulatory filings
- Complete summative human factors evaluation
- Complete simulation software development and training program design
- Complete and document pre-clinical studies for FDA submittal
- Prepare and submit 510(k) application to FDA and prepare Technical File for CE Mark and submit to European Notified Body
- Publish white papers on pre -clinical studies

David McNally, President and Chief Executive Officer, stated, "During the past few weeks, Dr. Perry Genova, our Vice President of Research and Development and our team have carefully reviewed our plan to submit our single port robotic surgical system to the FDA for clearance to market, and apply for the CE Mark with a European Notified Body by the end of 2018. While the execution of the original roadmap was delayed during last year due to funding issues, we believe that the team's experience in advancing innovative and complex medical technologies through the design, development and regulatory review processes will enable Titan to submit its applications in 2018. We still need to raise additional funding of approximately \$70 million to meet the 2018 filing objective. However, we believe with the multi-billion dollar opportunity ahead of us, sufficient financing and successful execution by our team, we can create substantial shareholder value."

Mr. McNally continued, "Achieving the user requirements milestone slightly ahead of our updated schedule is a positive step for Titan's trajectory toward commercialization and illustrates our team's ability to focus on the most important requirements for our platform, so that execution can be simplified. We will leverage the momentum gained by achieving this milestone to execute on the remaining objectives as we advance toward commercialization."

Management led by David McNally, President & CEO, will host a conference call to discuss the financial results and MD&A for the fourth quarter ended December 31, 2016 and recent corporate developments at 4:30 PM ET, today, March 23<sup>rd</sup>. Investors within Canada and the United States interested in participating are invited to call 800-274-0251. All other international participants can use the dial-in number +1 416-642-5209. During the call management, will offer remarks and take live questions from analysts and professional investors. Others are encouraged to submit questions prior to or during the call to <u>aprior@evcgroup.com</u>.

A replay of the event will be available for two weeks following the conclusion of the call. To access the replay, callers in Canada and the United States can call 888-203-1112 and reference the Replay Access Code: 5784933. All callers outside Canada and the United States can dial +1 647-436-0148, using the same Replay Access Code. To access the webcast, please visit http://www.titanmedicalinc.com/and select 'Investors.'

# About Titan Medical Inc.

Titan Medical Inc. is a Canadian public company focused on research and development through to the planned commercialization of computer-assisted robotic surgical technologies for application in minimally invasive surgery ("MIS"). The Company is currently developing the SPORT Surgical System, a single-port robotic surgical system. The SPORT Surgical System is comprised of a surgeon-controlled patient cart that includes a 3D high definition vision system and multi-articulating instruments for performing MIS procedures, and a surgeon workstation that provides the surgeon with an advanced ergonomic interface to the patient cart and a 3D endoscopic view inside the patient's body during MIS procedures. With the SPORT Surgical System, the Company aims to pursue a broad set of surgical indications, including general abdominal, gynecologic and urologic procedures.

For more information, please visit the Company's website at<u>www.titanmedicalinc.com</u>.

## Forward-Looking Statements

This press release contains "forward-looking statements" which reflect the current expectations of management of the Company. Such statements include, but are not limited to, statements regarding receipt of applicable regulatory approvals, the anticipated Closing Date and the proposed use of the Net Proceeds. Wherever possible, words such as "may", "would", "could", "will", "anticipate", "believe", "plan", "expect", "intend", "estimate", "potential for" and similar expressions have been used to identify these forward-looking statements. These statements reflect management's current beliefs with respect to future events and are based on information currently available to management. Forward-looking statements involve significant risks, uncertainties and assumptions. Many factors could cause the Company's actual results, performance or achievements to be materially different from any future results, performance or achievements that may be expressed or implied by such forward-looking statements, including, without limitation, those listed in the "Risk Factors" section of the Company's Annual Information Form dated March 30, 2016 (which may be viewed at <u>www.sedar.com</u>). Should one or more of these risks or uncertainties materialize, or should assumptions underlying the forward-looking statements prove incorrect, actual results, performance or achievements may vary materially from those expressed or implied by the forward-looking statements may vary materially from those expressed or implied by the forward-looking statements and are based upon what management currently believes to be reasonable assumptions, the Company cannot assure prospective investors that actual results, performance or achievements will be consistent with these forward-looking statements.

# CONTACT INFORMATION

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# TITAN MEDICAL INC.

# ANNUAL INFORMATION FORM

# For the fiscal year ended December 31, 2016

March 31, 2017

# TITAN MEDICAL INC. ANNUAL INFORMATION FORM

# TABLE OF CONTENTS

|                                                                                 | Page                                                                                                                                          |
|---------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| CORPORATE STRUCTURE                                                             | 1                                                                                                                                             |
| CAUTION REGARDING FORWARD-LOOKING STATEMENTS                                    | 1                                                                                                                                             |
| DEVELOPMENT OF THE BUSINESS                                                     | 4                                                                                                                                             |
| DESCRIPTION OF THE BUSINESS                                                     | 8                                                                                                                                             |
| Product Development                                                             | 8                                                                                                                                             |
| Development Objectives                                                          | 9                                                                                                                                             |
| Market Opportunity                                                              | 12                                                                                                                                            |
| Regulation                                                                      | 13                                                                                                                                            |
| Specialized Skill and Knowledge                                                 | 13                                                                                                                                            |
| Intellectual Property Protection                                                | 14                                                                                                                                            |
| Employees                                                                       | 14                                                                                                                                            |
| Surgeon Advisory Board                                                          | 15                                                                                                                                            |
| RISK FACTORS                                                                    | 16                                                                                                                                            |
| The Business of the Company – General                                           | 17                                                                                                                                            |
| Additional Financing and Going Concern                                          | 17                                                                                                                                            |
| Strategic Alliances                                                             | 17                                                                                                                                            |
| Dependence on Key Personnel                                                     | <u>17</u>                                                                                                                                     |
| Competition                                                                     | <u>18</u>                                                                                                                                     |
| Infringement of Intellectual Property Rights                                    | 1<br>4<br>8<br>8<br>9<br>12<br>13<br>13<br>14<br>14<br>14<br>14<br>15<br>16<br>17<br>17<br>17<br>17<br>17<br>17<br>17<br>17<br>19<br>19<br>19 |
| Intellectual Property                                                           | <u>19</u>                                                                                                                                     |
| Current Global Financial Conditions                                             | <u>20</u>                                                                                                                                     |
| Conflicts of Interest                                                           | 21<br>21                                                                                                                                      |
| Results of Operations                                                           | <u>21</u>                                                                                                                                     |
| Rapidly Changing Markets Make it Difficult to Forecast Future Operating Results |                                                                                                                                               |
| Uncertain Market/Uncertain Acceptance of the Company's Technology/Target Market | <u>21</u>                                                                                                                                     |
| Technological Advancements                                                      | <u>22</u>                                                                                                                                     |
| Insurance and Uninsured Risks                                                   | <u>22</u>                                                                                                                                     |
| Ability to License Other Intellectual Property Rights                           | <u>22</u>                                                                                                                                     |
| Government Regulation                                                           | <u>22</u>                                                                                                                                     |
| Profitability                                                                   | <u>23</u>                                                                                                                                     |
| Changes in Government Policy                                                    | 21<br>21<br>22<br>22<br>22<br>22<br>23<br>23<br>23<br>23<br>23<br>23<br>23                                                                    |
| Changes in Accounting and Tax Rules                                             | 23                                                                                                                                            |
| Contingent Liabilities                                                          | 23                                                                                                                                            |
|                                                                                 |                                                                                                                                               |

- i -

The Business of the Company - Research and Development Operations Uncertainty as to Product Development and Commercialization Milestones Product and Services Not Completely Developed Manufacturing Risks Product Defect Risk Supplier 1 Securities of the Company Stock Price Volatility Future Share Sales Limited Operating History Fluctuating Financial Results Currency Fluctuations DIVIDENDS CAPITAL STRUCTURE MARKET FOR SECURITIES ESCROWED SECURITIES DIRECTORS AND OFFICERS AUDIT COMMITTEE PROMOTER LEGAL PROCEEDINGS AND REGULATORY ACTIONS INTEREST OF MANAGEMENT AND OTHERS IN MATERIAL TRANSACTIONS TRANSFER AGENT AND REGISTRAR MATERIAL CONTRACTS EXPERTS ADDITIONAL INFORMATION

- ii -

 $\begin{array}{c} 23\\ 23\\ 24\\ 25\\ 25\\ 25\\ 25\\ 26\\ 26\\ 26\\ 26\\ 26\\ 26\\ 26\\ 26\\ 27\\ 28\\ 32\\ 32\\ 32\\ 32\\ 35\\ 35\\ 35\\ 36\\ 36\\ 36\\ 36\\ 36\\ 36\end{array}$ 

# CORPORATE STRUCTURE

#### Name, Address and Incorporation

Titan Medical Inc. ("Titan" or the "Company" or "we") is the successor corporation formed pursuant to two separate amalgamations (the "Amalgamations") under the *Business Corporations Act* (Ontario) on July 28, 2008. The head office and registered office of Titan is located at 170 University Avenue, Suite 1000, Toronto, Ontario M5H 3B3. Titan's main telephone number is (416) 548-7522.

The following is a brief description of the Amalgamations.

Synergist Medical Inc. ("Synergist"), Titan Medical Inc. (formerly, 2174656 Ontario Limited) ("Newco") and KAM Capital Corp. ("KAM") entered into an amalgamation agreement on June 23, 2008, pursuant to which on July 28, 2008 Synergist amalgamated with Newco, a wholly-owned subsidiary of KAM, to form a new corporation called Titan Medical Inc. ("Amalco"). Thereafter, Amalco amalgamated with KAM pursuant to a vertical amalgamation to form a new corporation called Titan Medical Inc.

Synergist was incorporated on July 5, 2002 and commenced operations on May 31, 2006 for the purpose of developing robotic surgical technology. KAM was incorporated on November 28, 2007 and filed and obtained a receipt for a final prospectus from certain Canadian securities regulatory authorities in compliance with the TSX Venture Exchange's ("TSX-V") Policy on Capital Pool Companies ("CPC Policy"). Newco was formed as a special purpose wholly-owned subsidiary of KAM incorporated for the purpose of effecting the Amalgamations. The Amalgamations constituted the Qualifying Transaction of KAM under the CPC Policy.

#### **Intercorporate Relationships**

Titan does not have any subsidiaries.

# Currency

Effective January 1, 2014, the Company changed its functional and presentation currency from the Canadian dollar to the U.S. dollar, applied on a prospective basis in accordance with IAS 21. This change reflects the continuing increase in the Company's costs being incurred in U.S. dollars, a trend which is expected to continue in the foreseeable future. All currency amounts in this annual information form are in U.S. dollars unless otherwise indicated.

#### CAUTION REGARDING FORWARD-LOOKING STATEMENTS

This annual information form and the documents incorporated by reference herein contain "forward-looking information", concerning anticipated developments and events which the Company has a reasonable basis to believe may occur in the future. These forward-looking statements are made as of the date of this annual information form or, in the case of documents incorporated by reference herein, as of the date of such documents. Forward-looking statements are frequently, but not always, identified by words such as "expects", "expectation", "anticipates", "believes", "intends", "estimates", "predicts", "continues", "potential", "targeted", "plans", "possible" and similar expressions (including negative and grammatical variations), or statements that events, conditions or results "will", "may", "could", "would" or "should" occur or be achieved. Any forward-looking statements or statements of "belief", including the statements made under "Risk Factors", represent our estimates only as of the date of this annual information form, and should not be relied upon as representing our estimates as of any subsequent date. These forward-looking statements may concern anticipated developments in the Company's operations in future periods, the adequacy of the Company's financial resources and other events or conditions that may occur in the future, and include, without limitation, statements regarding:



- the Company's technology and research and development objectives, including development milestones, estimated costs, schedules for completion and probability of success;
- the Company's intention with respect to updating any forward-looking statement after the date on which such statement is made or to reflect the occurrence of unanticipated events;
- the Company's expectation with respect to continuing animal study feasibility and commencing cadaver studies;
- the Company's expectation that pre-clinical animal data alone will be required, without the requirement for the initiation of human clinical studies for regulatory submissions;
- the Company's expectation with respect to launching a commercial product in certain jurisdictions;
- the Company's intentions to develop a robust training curriculum and post-training assessment tools;
- the Company's plans to develop and commercialize the SPORT Surgical System and the estimated incremental costs (including the status, cost and timing of achieving the development milestones disclosed herein);
- the Company's plans to design, create and refine software for production system functionality of the SPORT Surgical System and the estimated incremental costs (including the status, cost and timing of achieving the development milestones disclosed herein);
- the Company's intentions to complete heuristic and formative usability modules and human factors studies, formalize user requirements, stabilize the design and development of the system and initiate pre-clinical studies;
- the Company's intentions with respect to initiating marketing activities following receipt of the applicable regulatory approvals;
- the surgical indications for, and the benefits of, the SPORT Surgical System;
- the Company's intention to continue to assess specialized skill and knowledge requirements and recruitment of qualified personnel and partners;
- the Company's belief that the materials and parts necessary for the manufacture of a clinical-grade SPORT Surgical System will be available in the marketplace;
- the Company's belief that its existing and planned prototype units will be able to support human factors studies and pre-clinical testing activities in 2017;
- the Company's filing and prosecution of patent applications to expand its intellectual property portfolio as technologies are developed or refined;
- the Company's seeking of licensing opportunities to expand its intellectual property portfolio;
- the Company's intended use of proceeds of any offering of its shares;
- the Company's intention with respect to not paying any cash dividends on Common Shares in the foreseeable future;
- the Company's intention to retain future earnings, if any, to finance expansion and growth;
- the agreement with Longtai Medical Inc. ("Longtai") and the issuance of securities and related matters thereunder;
- projected competitive conditions with respect to the Company's products;
- the estimated size of the market for robotic surgical systems; and
- the potential market for warrants or units.

Forward-looking statements are statements about the future and are inherently uncertain, and actual results of the Company or other future events or conditions may differ materially from those reflected in the forward-looking statements due to a variety of risks, uncertainties and other factors, including those referred to in this annual information form, including but not limited to those described in the section titled, "Risk Factors" herein and therein, in any document incorporated by reference herein or therein, or listed from time to time in our reports, public disclosure documents and other filings with the securities commissions in Canada. These risks include, but are not limited to:

- Additional Financing
- History of Losses
- Going Concern
- Strategic Alliances
- Dependence on Key Personnel
- Ability to Attract Qualified Employees to Maintain and Grow Business
- Disclosure of Trade Secrets and Other Proprietary Information



- Dependence on Third Parties
- Competition
- Infringement of Intellectual Property Rights
- Intellectual Property
- Current Global Financial Conditions
- Trademarks
- Recent Changes in Senior Management of the Company
- Conflicts of Interest
- Results of Operations
- Rapidly Changing Markets Make it Difficult to Forecast Future Operating Results
- Uncertain Market/Uncertain Acceptance of the Company's Technology/Target Market
- Technological Advancements
- Insurance and Uninsured Risks
- Ability to License Other Intellectual Property Rights
- Government Regulation
- Profitability
- Changes in Government Policy
- Changes in Accounting and Tax Rules
- Contingent Liabilities
- Uncertainty as to Product Development and Commercialization Milestones
- Product and Services Not Completely Developed
- Manufacturing Risks
- Reliance on External Suppliers and Development Firms
- Product Defect Risk
- Suppliers
- Stock Price Volatility
- Future Share Sales
- Limited Operating History
- Fluctuating Financial Results
- Effect of Estimates Regarding Milestones
- Currency Fluctuations

Forward-looking statements are based on a number of assumptions which may prove to be incorrect, including but not limited to assumptions about:

- general business and current global economic conditions;
- future success of current research and development activities;
- achieving development and commercial milestones;
- inability to achieve produce cost targets;
- competition;
- changes to tax rates and benefits;
- the availability of financing;
- the Company's and competitors' costs of production and operations;
- the Company's ability to attract and retain skilled employees;
- the Company's ongoing relations with its third-party service providers;
- the design of the SPORT Surgical System and related platforms and equipment;
- the progress and timing of the development of the SPORT Surgical System;
- costs related to the development, completion and potential commercialization of the SPORT Surgical System;
- receipt of all applicable regulatory approvals;
- estimates and projections regarding the robotic surgery equipment industry;
- protection of the Company's intellectual property rights;
- market acceptance of the Company's systems under development; and
- the type of specialized skill and knowledge required to develop the SPORT Surgical System and the Company's access to such specialized skill and knowledge.

- 3 -

We caution that the foregoing list of important factors and assumptions is not exhaustive. Although the Company has attempted to identify on a reasonable basis important factors and assumptions related to forward-looking statements, there can be no assurance that forward-looking statements will prove to be accurate, as events or circumstances or other factors could cause actual results to differ materially from those estimated or projected and expressed in, or implied by, these forward-looking statements. Other than as specifically required by law, the Company undertakes no obligation to update any forward-looking statement to reflect events or circumstances after the date on which such statement is made, or to reflect the occurrence of unanticipated events, whether as a result of new information, future events or results or otherwise. Accordingly, readers should not place undue reliance on forward-looking statements.

#### **DEVELOPMENT OF THE BUSINESS**

# **Three Year History**

The Company's activities over the last three years have focused on developing its technology and technical capabilities, developing strategic relationships, securing its intellectual property and raising equity capital.

# <u>2016</u>

The Company's business is focused on research and development through to the commercialization of computer-assisted robotic surgical technologies for application in minimally invasive surgery ("MIS"). The Company is presently developing a single-port robotic surgical system, the SPORT Surgical System. The SPORT Surgical System is comprised of a surgeon-controlled patient cart that includes a 3D high definition vision system and multi-articulating instruments for performing surgical procedures, and a surgeon workstation that provides the surgeon with an advanced ergonomic interface to the patient cart and a 3D endoscopic view inside the patient's body during MIS procedures.

The Company had previously announced plans to build first-in-human units in the first quarter of 2016 after the completed build of the two engineering verification ("EV") units. However, due to the revision of the development path discussed below, the first-in-human units were repurposed as EV units and were completed during the first quarter of 2016. The EV units incorporate substantially all of the previous design and engineering work completed on the SPORT Surgical System and may be used for pre-clinical live animal and human cadaver studies are expected to provide comprehensive and high quality information to have a positive contribution toward anticipated regulatory submissions to the FDA and European regulatory authorities for the CE Mark.

In the first quarter of 2016, in consultation with its advisors, the Company and its principal development firm, Ximedica, re-engineered and optimized the 2016 development plan. This was done partially in view of observations related to the experiences of other robotic surgery competitors in dealing with regulatory authorities and published changes to the U.S. Food and Drug Administration ("FDA") guidelines, "Applying Human Factors and Usability Engineering to Medical Devices", issued February 3, 2016, and effective April 3, 2016. The Company reviewed the FDA's new guidelines and incorporated additional procedures and documentation into its human factors and usability studies in an effort to comply with the new guidelines. Consequent to this as well as further engineering development initiatives, the Company determined the total costs for it to reach submission of a 510(k) application to the FDA would increase significantly from the Company's previously published estimate. The Company therefore withdrew all prior milestone charts set forth in the Company's Management's Discussion and Analysis and Annual Information Form in respect of the year ended December 31, 2015 and those set forth in its prospectus supplements respectively dated February 9, 2016 and March 24, 2016.

The amounts and timing of Titan's actual expenditures will depend upon numerous factors, including the status of its development and commercialization efforts and the amount of cash generated through any strategic collaborations into which it may enter. Through the engineering development and human factors exercises completed to date, the Company has developed a clearer understanding of user requirements, technical challenges and their associated risks and has identified opportunities to more efficiently utilize internal and external resources in order to complete product development toward commercialization of its product.

#### - 4 -

In the second quarter of 2016, the Company entered into a manufacturing and supply agreement with an established U.S.-based contract manufacturer (the "Contract Manufacturer") for the future manufacturing of the SPORT Surgical System. In addition to providing manufacturing expertise, the Contract Manufacturer is expected to participate in the final stages of development and design for manufacturing of the SPORT Surgical System.

Among other things, the future success of the Company is substantially dependent on continuing its research and development program, including the ongoing support of any outsourced research and development suppliers. The principal development firm and the Contract Manufacturer engaged by the Company have expressed their concerns over the limited financing available to the Company, following periods of reduced program funding in 2016.

During the second half of 2016, the work performed by Ximedica and the Contract Manufacturer engaged by the Company for design and development of the SPORT Surgical System was reduced until such time that the Company received sufficient financing to cover work orders projected over a six-month period. Subsequent to an offering by the Company that closed in October 2016, both firms were re-engaged to resume development of the SPORT Surgical System at a rate consistent with the level of financing raised and acceptable to both Ximedica and the Contract Manufacturer. This scaled-back rate of program funding was intended as a short-term solution to maintain momentum in critical path human factors studies until accelerated product development could be resumed with adequate funding in 2017.

Previously, the Company had forecast specific milestones for completion in 2016. Due in part to scaled back development, several of these milestones were not completed. In particular, the Company proposed the build of a fifth engineering verification unit, ("EV5"), in the second half of 2016. Based upon imminent design changes, the Company deemed that the build of an EV5 unit would have little value and indeed could have even diverted precious engineering and financial resources from making progress on known iterative design improvements. It has been determined that the assembly of additional EV units is not necessary at this time. The Company already has working prototype units that it believes can be upgraded and made to support human factors studies and anticipated pre-clinical testing activities in 2017.

Subsequent to the filing of the Company's prospectus supplement dated September 13, 2016 and its management's discussion and analysis in respect of the three and nine months ended September 30, 2016, and following the resignations of the Company's former Executive Vice President of Regulatory Affairs and the Company's former Chief Executive Officer, the Company completed a detailed review of its development plan and its then current milestones. With the appointment of the Company's new Chief Executive Officer, David McNally, effective January 3, 2017, the development review was extended and increased in scope which resulted in the Company's decision to revise its interim development milestones. Consequently, the milestones set forth in the prospectus supplement dated September 13, 2016 and its management's discussion and analysis in respect of the three and nine months ended September 30, 2016 have been withdrawn and replaced with the new milestones contained in this annual information form.

The Company had also forecast that it would complete heuristic studies, which are precursors to the more formal formative usability studies, in 2016. A heuristic study is a "hands-on" or interactive approach to learning, and a process in which technical personnel evaluate a device's user interface against design principles, rules or "heuristic" guidelines. The object is to evaluate the overall user interface, and identify possible weaknesses in the design, especially when use error could lead to patient or operator harm. Heuristic studies include careful consideration of accepted concepts for design of the user interface. Formative studies involve more in-depth evaluation of the user interface by "subject matter experts", which may include surgeons, nurses, and operating room technicians. The rigorous nature of formative studies with participation by clinical experts typically drives significantly higher associated expenses than heuristic studies. Therefore, it is most efficient to gain insights from heuristic studies before proceeding to formative studies.

- 5 -

Specifically, the Company had forecast the completion of two heuristic usability modules in the second half of 2016. These heuristic usability modules were completed, however the results of the studies yielded opportunities to improve the design of the product. Therefore, after making changes to system prototypes, two additional heuristic modules were completed by the end of 2016, for a total of four heuristic usability modules performed in 2016. The Company now expects to proceed to complete two formative usability modules in the first half of 2017, promptly following a final analysis of the first four heuristic usability modules.

The Company's financings in 2016 included:

- In February 2016, the Company completed a prospectus qualified offering of 11,670,818 units and the issuance and sale of an additional 1,746,789 units
  pursuant to the over-allotment option granted to the agent in connection with the offering for total gross proceeds of U.S.\$8,732,038. Each unit consisted of one
  Common Share and one warrant. Each warrant entitles the holder to purchase one additional Common Share for CDN\$1.00 and will expire February 12, 2021.
- In March 2016, the Company completed a prospectus qualified offering of 15,054,940 units for gross proceeds of U.S.\$11,607,359. Each unit consisted of one Common Share and one warrant. Each warrant entitles the holder to purchase one additional Common Share for CDN\$1.20 and will expire March 31, 2021. In April 2016, the Company completed the issuance and sale of 2,258,241 additional units pursuant to the over-allotment option granted to the agent in connection with the offering for gross proceeds of U.S.\$1,759,396.
- In September 2016, the Company completed a prospectus qualified offering of 17,083,333 units for gross proceeds of U.S.\$7,490,000. Each unit issued consisted of one Common Share and one warrant. Each warrant entitles the holder to purchase one additional Common Share for CDN\$0.75 and will expire September 20, 2021. In October 2016, the Company completed the issuance and sale of 2,030,000 additional units pursuant to the over-allotment granted to the agent in connection with the offering for gross proceeds of U.S.\$909,846.

### 2015

After completing the design and test of a feasibility prototype of the SPORT Surgical System in the first quarter of 2015, the Company completed the build of two engineering verification units in the fourth quarter of 2015.

In the first half 2015, the Company entered into an agreement with the James and Sylvia Earl, Simulation to Advance Innovation and Learning (SAIL) Center at Anne Arundel Medical Center (AAMC) in Annapolis, MD, for the development of the training curriculum and post-training assessment of surgeons and surgical teams who would use the SPORT Surgical System. The agreement however was suspended in 2017 by mutual consent with a view to the Company's principal objective to focus its resources on advancing the development of the SPORT Surgical System.

In the first half of 2015, the Company also entered into an option agreement (the "Technology Option Agreement") with Platform Imaging, LLC ("Platform") whereby Platform granted the Company an option (the "Option") to negotiate a license agreement ("License Agreement") to have exclusive rights to practice the inventions set forth in the patents for Markerless Tracking of Robotic Surgical Tools for incorporation in the Company's SPORT Surgical System and to distribute such product thereafter. Under the terms of the Technology Option Agreement, the Company paid to Platform a non-refundable option fee of \$300,000 as follows: (i) \$100,000 upon signing the Technology Option Agreement; (ii) \$100,000 on January 2, 2016; and (iii) \$100,000 on October 1, 2016. In addition, the Company had the right at any time up to and including February 2, 2017, to exercise the Option by paying a fee of \$1.3 million (the "License Fee") for the rights under the License Agreement, payable upon execution of a License Agreement. Prior to February 2, 2017, Titan gave notice that it would not exercise the option. A former member of the Company's senior management was also a director, member of the Platform senior management team, co-inventor of the technology, co-founder of Platform and a significant shareholder of Platform.

- 6 -

In the third quarter of 2015, the Company entered into an agreement with BSI Group America Inc. ("BSI"), a recognized European Notified Body, for BSI to perform the necessary assessments to certify Titan's quality management system for compliance with international and European requirements, as required for medical devices marketed in the European Union.

On September 7, 2015, the Company entered into a master services agreement with Chiltern International, Inc. ("Chiltern"), formerly Theorem CR, Inc., which would allow the parties to negotiate the provision of clinical trial research services to be provided by Chiltern to Titan from time to time, without having to re-negotiate the terms and conditions for each such service. This agreement was terminated by the Company in the third quarter of 2016.

On November 30, 2015, the Company entered into an agreement with Cadence Device, Inc., a wholly-owned subsidiary of Cadence, Inc. ("Cadence"). Under the terms of that agreement, Cadence agreed to develop, manufacture and manage the supply chain, sterilization and distribution for multi-articulating robotic instruments for use with Titan's SPORT Surgical System.

The Company entered into a license agreement with Mayo Foundation for Medical Education and Research effective December 14, 2015, pursuant to which the Company received certain rights to intellectual property developed by David W. Larson, M.D., Mayo Clinic. On March 28, 2017, the Company provided notice that it will no longer continue with the license agreement and associated payments.

The Company's financings in 2015 included:

- On October 30, 2015, the Company entered into a letter agreement (the "Letter Agreement") with Longtai Medical Inc. Under the terms of the Letter Agreement, on November 23, 2015, Longtai subscribed for and purchased US \$4,000,000 worth of Common Shares under a private placement, at a subscription price of CDN \$1.23 per Common Share. In the Letter Agreement, the Company granted to Longtai exclusive rights to negotiate with the Company for an exclusive marketing, sales and distribution agreement for the Company's SPORT Surgical System in the Asia Pacific region (the "Distributorship Agreement") for a period of 183 days commencing at closing of the private placement. Additionally, Longtai paid to the Company U.S.\$2,000,000 as a deposit toward the Distributorship Agreement ("Distributorship Deposit"), which is required to be repaid to Longtai in the event that the Distributorship Agreement is not entered into within such 183 day period. On May 24, 2016, the Company and Longtai executed a three month extension of the exclusive rights granted to Longtai to negotiate the Distributorship Agreement and for the repayment of the Distributorship Deposit to Longtai, extending the negotiation period and the date for repayment of the Distributorship Agreement from the previous three month extension to monthly progress reviews. There is no assurance that the parties will be able to negotiate and enter into the Distributorship Agreement and the Company may be required to return the U.S.\$2,000,000 deposit to Longtai.
- In November 2015, the Company completed a prospectus qualified offering of 9,349,593 units for gross proceeds of U.S.\$8,611,901. Each unit issued consisted of one Common Share and 0.75 of a Warrant. Each such whole Warrant entitles the holder thereof to purchase one additional Common Share for CDN\$1.60 and will expire November 16, 2020.

#### <u>2014</u>

During 2014, the Company was principally engaged in the research and development of robotic surgical technologies in conjunction with its SPORT Surgical System. After building an alpha commercial prototype of the SPORT Surgical System, Titan completed animal tissue studies including performing a full cholecystectomy (gallbladder removal) procedure using the prototype for the required surgical tasks (including grasping, dissecting, monopolar cautery and suturing).

Effective at market opening on September 30, 2014, Titan's common shares and warrants commenced trading on the Toronto Stock Exchange ("TSX") and concurrent with the TSX listing, the Company's common shares and warrants were de-listed from the TSX Venture Exchange.



During the year, Titan decided to pursue a broader set of surgical indications for the SPORT Surgical System, including general abdominal, gynecologic, and urologic procedures and the Company built additional prototypes and developed more advanced instruments and training systems for expanded use in additional surgical procedures.

The Company's financings in 2014 included:

- In February 2014, the Company completed a prospectus qualified offering of 9,142,500 units for gross proceeds of U.S.\$11,588,677. Each unit consisted of one Common Share and one warrant. Each warrant entitled the holder thereof to purchase one additional Common Share for CDN\$2.00 and expired on February 19, 2017.
- In April 2014, the Company completed a prospectus qualified offering of 12,203,189 Units for gross proceeds of U.S.\$23,232,936. Each unit consisted of one Common Share and one Warrant. Each warrant entitles the holder thereof to purchase one additional Common Share for CDN\$2.75 and will expire April 23, 2017.

# Significant Acquisitions

There were no significant acquisitions completed by Titan during its most recently completed financial year for which disclosure is required under Part 8 of National Instrument 51-102 – *Continuous Disclosure Obligations*.

# DESCRIPTION OF THE BUSINESS

# **Product Development**

The Company's business is focused on research and development through to the planned commercialization of computer-assisted robotic surgical technologies for application in minimally invasive surgery ("MIS"). The Company is currently developing the SPORT Surgical System, a single-port robotic surgical system. The SPORT Surgical System is comprised of a surgeon-controlled patient cart that includes a 3D high definition vision system and multi-articulating instruments for performing MIS procedures, and a surgeon workstation that provides the surgeon with an advanced ergonomic interface to the patient cart and a 3D endoscopic view inside the patient's body during MIS procedures. With the SPORT Surgical System, the Company aims to pursue a broad set of surgical indications, including general abdominal, gynecologic and urologic procedures.

Development of the SPORT Surgical System has proceeded in response to "voice of customer" feedback and, consultation with medical technology development firms and input from the Company's Surgeon Advisory Board (the "Surgeon Advisory Board") comprised of key opinion leaders in targeted fields. This approach has allowed the Company to design a robotic surgical system that is intended to include the traditional advantages of robotic surgery including 3D stereoscopic imaging and restoration of instinctive control, as well as new and enhanced features, including an advanced surgeon workstation incorporating a 3D high definition display providing a more ergonomically friendly user interface and a patient cart with improved instrument dexterity. Overall, the surgical system is designed to be adapted to the needs of the surgeon, rather than the surgeon having to adapt to the system.

The SPORT Surgical System patient cart is being developed to deliver interactive multi-articulating instruments and a 3D high definition vision system into a patient's abdominal body cavity through a single access port. The design of the patient cart includes an insertion tube of approximately 19 millimeter (mm) diameter, capable of insertion into the patient's body cavity through a skin incision of approximately 25 mm. The insertion tube includes a collapsible distal end portion incorporating a 3D high definition camera module that once inserted, is configured to deploy into a working configuration wherein the camera module and multi-articulating instruments can be controlled by a surgeon via the workstation. The reusable multi-articulating, snake-like instruments are designed to couple with sterile detachable single patient use robotic end effectors that would provide first use quality in every case and eliminate the reprocessing of the complete instrument. The use of reposable (re-usable for a specific number of uses) robotic instruments and single patient use end effectors is intended to minimize the cost per procedure. The patient cart is also designed to include a mast, a boom and wheels for optimal configurability for a variety of surgical indications and the ability to be maneuvered within the operating room, or redeployed within hospitals and surgical centers, where applicable.



As part of the development of the SPORT Surgical System, the Company plans to develop a robust training curriculum and post-training assessment tools for surgeons and surgical teams. The proposed training curriculum will likely include cognitive pre-training, psychomotor skills training, surgery simulations, live animal and human cadaver lab training, surgical team training, troubleshooting and an overview of safety. Post-training assessment will include validation of the effectiveness of those assessment tools.

The Company continuously evaluates its technologies under development for intellectual property protection. As of December 31, 2016, the Company has ownership or certain exclusive rights to 14 patents and 32 patent applications. The Company anticipates expanding its intellectual property portfolio by filing additional patent applications as it progresses in the development of robotic surgical technologies, acquiring and/or by licensing suitable technologies. The Company previously entered into exclusive license agreements with several organizations including the Trustees of Columbia University. The agreement with Columbia University provides the Company with certain rights for the development and commercialization of robotic surgical technology for use in single port surgery, providing a basis for the development of the SPORT Surgical System.

As part of its development and commercialization efforts, the Company has established certain milestones that it uses to assess its progress towards developing commercially viable robotic surgical technologies. These milestones relate to technology and design advancements as well as to targeted dates for pre-clinical studies and completion of regulatory submissions. To assess progress, the Company regularly tests and evaluates its technology. If such evaluations indicate technical defects or failure to meet cost or performance goals, the Company's commercialization schedule could be delayed and potential purchasers of its initial commercial systems may decline to purchase them or may choose to purchase alternative technologies. See "Risk Factors".

# **Development Objectives**

The Company employs a combination of internal resources and external development firms to execute the research, development and commercialization plan for the Company's robotic surgical system.

At this time, the Company's primary development objectives and milestones in 2017 will be to advance human factors studies, formalize user requirements, stabilize the design and development of the system, and initiate pre-clinical studies. Pre-clinical studies performed in live animal subjects by surgeons with fully-functional prototypes can provide valuable insights regarding system performance, as well as the suitability of related surgical accessories, during representative surgical procedures under controlled laboratory conditions.

It has been determined that the build of additional engineering verification units as previously planned and disclosed are not necessary. The Company believes it is in a position where it can upgrade existing prototype units to current levels of performance which will provide a sufficient number of prototype units to accomplish immediate goals of commencing pre-clinical studies in 2017.

Based on the evolution of the SPORT design, the creation and refinement of software for production system functionality has not yet commenced. As the system design matures early in the year, the Company plans to commence this process in the first half of 2017, and anticipates that it will continue as an intensive, ongoing process through the balance of 2017 with anticipated completion in 2018. As software development is a parallel effort, it is anticipated that insights gained from human factors and pre-clinical studies will provide opportunities to optimize the system for clinical use.

The Company estimates that it will require a minimum of approximately U.S.\$10 million to fund its development milestones for the first half of 2017, specifically, those related to the advancement of the human factors and usability studies and finalization of user requirements for the first generation SPORT Surgical System. It is further estimated that a minimum of an additional U.S.\$18 million will be required to fund development and pre-clinical animal studies during the second half of 2017.

Although an estimate of the timing and costs for the development milestones in 2017 and beyond remains highly speculative, the Company presently estimates that a total of U.S.\$75 million of additional capital (including the U.S.\$10 million and U.S.\$18 million amounts noted above), will be required to fund development work through submission of the 510(k) application to the FDA and submittal to European authorities for the CE Mark, which are projected by year-end 2018. However, given the uncertainty of, among other things, product development timelines, regulatory requirements, the timing and number of future animal and human cadaver studies that may be required and the availability of required capital to fund development and operating costs, the actual costs and development times may exceed management's current expectations.

In addition to being capital intensive, research and development activities relating to the Company's SPORT surgical robot, which is a highly complex medical device are inherently uncertain as to future success and the achievement of desired results. If delays or problems occur during the Company's ongoing research and development activities, financial and human resources may need to be diverted toward resolving such delays or problems. Further, there is material risk that the Company's research and development activities may not result in a functional, commercially viable product or one that is approved by regulatory authorities. Please see "Risk Factors".

### Current Development Plan

The Company's current plan is to raise sufficient financing and to continue the development and commercialization of the SPORT Surgical System at estimated incremental costs, and according to the timeline, as set forth in the table below.

The Company anticipates costs to the end of 2017 related to the commercialization and regulatory clearance of the SPORT system to be as set out in the table below.

| Development Milestones                                                                                                   | Estimated Cost (in<br>U.S. \$ million) | Schedule for<br>Milestone<br>Completion | Comments  |
|--------------------------------------------------------------------------------------------------------------------------|----------------------------------------|-----------------------------------------|-----------|
| Units built and ready for engineering verification<br>(Prototype is formally tested to meet previously defined sp        | ecifications)                          |                                         |           |
| Build two EV units                                                                                                       | -                                      | Q4 2015                                 | Completed |
| Build additional EV units                                                                                                | -                                      | Q1 2016                                 | Completed |
| Perform initial heuristic human factors and usability studies                                                            | -                                      | Q2 2016                                 | Completed |
| Complete human factors and usability studies                                                                             |                                        |                                         |           |
| Finalize user requirements for 1st generation robotic surgical system                                                    | 4.5                                    | Q1 2017                                 | Completed |
| Select and confirm strategic facilities for pre- clinical studies in US and Europe                                       | 0.5                                    | Q2 2017                                 |           |
| Test and evaluate performance of subsystems of existing EV units                                                         | 1.8                                    | Q2 2017                                 |           |
| Complete initial formative human factors studies                                                                         | 2.0                                    | Q2 2017                                 |           |
| Initiate design changes based on subsystem performance<br>and human factors evaluation                                   | 1.0                                    | Q2 2017                                 |           |
| Implement design changes and retest system and subsystems                                                                | 8.7                                    | Q3 2017                                 |           |
| Update Design History File and documentation for<br>relevant modules of Company Quality Management                       |                                        | Q3 2017                                 |           |
| Systems ("QMS")<br>Complete initial requirements and architecture for<br>simulation software and training program design |                                        | Q3 2017                                 |           |



| Development Milestones                                                                                                            | Estimated Cost (in<br>U.S. \$ million) | Schedule for<br>Milestone<br>Completion | Comments |
|-----------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|-----------------------------------------|----------|
| Complete and report on pre-clinical animal<br>studies at strategic facilities in US and<br>Europe                                 | 9.2                                    | Q4 2017<br>Q4 2017                      |          |
| Confirm FDA and CE Mark pathways in coordination with regulatory authorities                                                      |                                        | Q4 2017                                 |          |
| Complete software development, system<br>design and update Design History File for<br>regulatory filing                           | TBD(1)                                 | 2018                                    |          |
| Complete summative human factors evaluation                                                                                       |                                        |                                         |          |
| Complete simulation software development and training program design                                                              |                                        |                                         |          |
| Complete and document pre-clinical studies for FDA submittal                                                                      |                                        |                                         |          |
| Prepare and submit 510(k) application to<br>FDA and prepare technical file for CE<br>Mark and submit to European Notified<br>Body |                                        |                                         |          |
| Publish white papers on pre-clinical studies                                                                                      |                                        |                                         |          |
| Anticipated receipt of FDA 510(k)<br>clearance and CE Mark                                                                        | TBD(1)                                 | 2019                                    |          |
| Perform successful human surgeries at initial US and European training centres                                                    |                                        |                                         |          |
| TOTAL                                                                                                                             | TBD(1)                                 |                                         |          |

Notes:

(1) A specific schedule for milestone completion cannot be estimated at this time as it is dependent upon receipt of additional funding.

Upon completion of the development of the SPORT Surgical System and following receipt of all applicable regulatory approvals in the United States, Europe, and/or Asia, the Company intends to utilize a direct sales force and/or distribution partner(s) to initiate marketing the SPORT Surgical System to hospitals.

Due to the nature of technology research and development, there is no assurance that these objectives will be achieved, and there can be no assurance with respect to the time or resources that may be required. The Company expects that additional specific milestones could be identified as the development of its SPORT Surgical System progresses, or existing milestones, budgets and the schedule for completion of each milestone may change depending on a number of factors including the results of the Company's development program, the availability of financing and the ability of development firms engaged by the Company to completed work assigned to them. The total costs to complete the development of the Company's SPORT Surgical System as referenced above are only an estimate based on current information available to the Company and cannot yet be determined with a high degree of certainty, and the costs may be substantially higher than estimated. Please see "*Caution Regarding Forward-Looking Statements*" and "*Risk Factors*".

- 11 -

#### **Market Opportunity**

The Company's robotic surgical system is being designed to address the growing robotic surgery market. The size of the market for robotic surgical systems is estimated by Grand View Research Inc. ("Grand View") to grow from approximately US \$7.5 billion in 2014 to US \$17.9 billion by 2022. See Grand View's report entitled "Medical Robotic Systems by Product (Surgical, Orthopedic, Laparoscopy, Neurological, Rehabilitation, Assistive, Prosthetics, Orthotics, Steerable, Therapeutic, Exoskeleton, Non-Invasive, Hospital/Pharmacy, Telemedicine, I.V, Pharmacy, Emergency Response Robotic Systems) – Analysis and Segment Forecasts to 2022" dated August, 2015, excerpts of which may be viewed at www.grandviewresearch.com.

# Robotic Surgery

Surgery has traditionally been performed through large, open incisions. Over the past 25 years, minimally invasive techniques and devices have been employed to minimize the size of incisions, reduce trauma to patients, and in turn, reduce associated pain, accelerate healing, shorten recovery times and produce smaller scars. Some of these benefits, such as shorter recovery times and reduced pain leading to shorter hospital stays, are directly associated with lower costs of care. However, minimally invasive surgery ("MIS") requires special tools to operate through small ports in the body, and advanced training for surgeons to manipulate those tools while viewing a two-dimensional image of the patient's internal anatomy on a monitor. As a result, consistent outcomes improvements are demonstrated by the most skilled and experienced surgeons, and less reliably by those less experienced. For these reasons, the acceptance of MIS has not broadly increased in more complex surgeries.

The shortcomings of both open surgery and MIS have led to the introduction of robots within the surgical environment. Robotic or computer-assisted surgical technologies represent the next generation in the evolution of advanced surgical care. The objectives of robotic systems are to provide surgeons with tools to allow complex procedures to be performed repeatedly with greater precision and dexterity, while offering improved vision and control. The use of robotics is intended to empower surgeons to employ improved techniques for minimally invasive surgery, and assist in reducing the risks associated with complex MIS surgeries.

#### Market Acceptance

To date, robotic surgical technologies have been employed in urology, gynecology, colon and rectal surgery, cardiothoracic surgery, general surgery, head and neck surgery, orthopedic surgery, neurosurgery, and catheter-based interventional cardiology and radiology.

The success of robotic technologies in these applications has led to the growing adoption and commercialization of these technologies in the medical industry. Although robotic surgical procedures have been gaining substantial acceptance, the industry is still in its infancy. The available technology is evolving along with advancements in imaging and computer-machine controls to overcome technical challenges. Current objectives include overcoming the limitations of multi-port access, limited dexterity and visualization.

#### Competitive Conditions

The industry leader within the robotic surgical market is Intuitive Surgical, Inc. (NASDAQ: ISRG), manufacturer of the da Vinci® Surgical System. In addition, there are a number of companies reported to be currently using or planning to use robots or computers in surgery, including TransEnterix Inc. (Senhance™ Surgical Robotic System), Medtronic, Inc., Medrobotics Corporation (Flex® Robotic System), Verb Surgical Inc. (a collaboration between Alphabet Inc.'s Verily division (formerly, Google Life Sciences) and Ethicon, a division of Johnson & Johnson), and South Korea's Meere Company Inc. (Eterne robotic system).

In 2016, Zimmer Biomet announced the purchase of France's MedTech, the maker of the ROSA<sup>TM</sup> surgical robot for minimally invasive neurosurgical procedures which was sold and used for the first time, in 2016. In early 2016, TransEnterix announced that its SurgiBot System did not receive FDA clearance and that TransEnterix would instead focus its efforts on obtaining FDA approval for its Senhance<sup>TM</sup> Surgical Robotic System.

Any company with substantial experience in robotics or complex medical devices could potentially expand into the field of surgical robotics and become a future competitor.

#### Regulation

#### United States Regulatory Process

In the United States, the Company's surgical system will be subject to regulation by the FDA. Management expects that under the FDA guidelines, the surgical system will be classified as a Class II medical device. Class II devices are those which are subject to the general controls and require premarket demonstration of adherence to certain performance standards or other special controls, as specified by the FDA, and clearance by the FDA. Premarket review and clearance by the FDA for these devices is accomplished through the 510(k) premarket notification process. For most Class II devices, the manufacturer must submit to the FDA a premarket notification submission, demonstrating that the device is "substantially equivalent" in intended use and technology to a "predicate device" that is either:

- (1) a device that has grandfather marketing status because it was legally marketed prior to May 28, 1976, the date upon which the Medical Device Amendments of 1976 were enacted, or
- (2) a Class I or II device that has been cleared through the 510(k) process.

The FDA may require further information, including clinical data, to make a determination regarding substantial equivalence. If the FDA determines that the device, or its intended use, is not "substantially equivalent" (as such term is defined by the FDA), the FDA may place the device, or the particular use of the device, into Class III, and the device sponsor must then fulfill much more rigorous pre-marketing requirements.

After a device receives 510(k) clearance, any modification that could significantly affect its safety or effectiveness, or that would constitute a major change in its intended use, would require a new 510(k) clearance or could require a pre-market approval application. The FDA requires each manufacturer to make this determination in the first instance, but the FDA can review any such decision. If the FDA disagrees with a manufacturer's decision not to seek a new 510(k) clearance, the agency may retroactively require the manufacturer to seek 510(k) clearance or pre-market approval. The FDA may also require the manufacturer to cease marketing and/or recall the modified device until 510(k) clearance or pre-market approval is obtained.

# European Union and Canada Regulatory Process

Medical devices in the European Union ("EU") are regulated under EU Council Directive 93/42/EEC as amended by 2007/47/EC, also referred to as Medical Device Directive or MDD, and must bear the CE Mark prior to being placed on the market. In order to affix the CE Mark on products, a recognized European Notified Body must certify a manufacturer's quality management system for compliance with international and European requirements. Any modifications of existing products or development of new products in the future will require permission to affix the CE Mark to such products.

In order to commercialize products in Canada, regulatory approval from Health Canada (Therapeutic Products Directorate, Medical Devices Bureau) is required. Medical device licence applications must contain a valid ISO 13485:2003 certificate issued by a Health Canada recognized registrar under the Canadian Medical Devices Conformity Assessment System (CMDCAS). Evaluation of product safety and effectiveness is completed by Health Canada.

#### Specialized Skill and Knowledge

The research and development of the Company's surgical system requires specialized skill and knowledge. We believe the required skill and knowledge to carry out the current stage of research and development is available to the Company, through its current officers, employees and external medical technology development firms. The Company will continue to assess its requirements and recruit and engage required qualified personnel and development firms as needed, subject to budget limitations. If the final research and development stage is successfully completed and the clinical-grade SPORT Surgical System is developed, it is believed that the materials and parts necessary for the manufacture of the product will be available in the marketplace. However, there is no assurance in this regard as the research and development program may, in the future, reveal requirements for new materials and parts that have not been identified to date.



#### **Intellectual Property Protection**

The Company continuously evaluates its technologies under development for intellectual property protection. In accordance with industry practice, the Company's proprietary rights are currently protected through a combination of copyright, trade-mark, patents, trade secret laws and contractual provisions.

Patent applications are filed in various jurisdictions internationally, which are selectively chosen having regard to the likely value and enforceability of intellectual property rights in those jurisdictions, and to strategically reflect the Company's anticipated principal markets. Patents provide the Company with a potential right to exclude others from incorporating the Company's technical innovations into their own products and processes. Where appropriate, the Company licenses third party technologies to provide the Company with the flexibility to adopt preferred technologies.

As of the December 31, 2016, the Company had ownership of certain exclusive rights to 14 patents and 32 patent applications. The Company anticipates expanding its intellectual property portfolio by filing additional patent applications as it progresses in the development of robotic surgical technologies, acquiring and/or by licensing suitable technologies.

The scope of protection obtained, if any, from the Company's current or future patent applications may not be known for several years. Moreover, there is no assurance that any patents will be issued with respect to any such patent applications, and if patents are issued, they may not provide the Company with the expected competitive advantages, or they may not be issued in a manner that gives the Company the protection that it seeks, or they may be successfully challenged by third parties.

The Company also seeks to avoid disclosure of its intellectual property and proprietary information by requiring employees and consultants to execute non-disclosure and assignment of intellectual property agreements. Such agreements also require the Company's employees and consultants to assign to the Company all intellectual property developed in the course of their employment or engagement. The Company also utilizes non-disclosure agreements to govern interaction with business partners and prospective business partners and other relationships where disclosure of proprietary information may be necessary, and the Company takes measures to carefully protect its intellectual property rights in its supplier agreements with external development firms.

#### Operations

The Company develops its core technologies through a combination of in-house personnel and selected external engineering and medical technology development and manufacturing firms. Certain components of the Company's robotic surgical system are being developed to the Company's specifications by various third party suppliers, medical technology development and manufacturing firms through purchase orders and it does not have long-term contracts with any third parties.

The Company maintains its head office at subleased premises in Toronto, Ontario.

#### Employees

As of December 31, 2016, the Company had a total of 10 full-time employees and two consultants.

### Surgeon Advisory Board

The Company has assembled a surgeon advisory board consisting of the following surgeons who are widely regarded as leaders in the field of medical robotics or fields of surgery where robotics are expected to have a significant impact:

#### Arnold Advincula, M.D.

Dr. Advincula is Vice-Chair of Women's Health & Chief of Gynecology at the Sloane Hospital for Women,

Columbia University Medical Center/New York Presbyterian Hospital. Formerly, he was Professor of Obstetrics and Gynecology, Director of the Minimally Invasive Surgery Division and Fellowship, and Director of the Endometriosis Center at the University of Michigan. More recently, he was Director of the Center for Specialized Gynecology and Director of the Education Institute at the Nicholson Center, an advanced medical and surgical simulation training facility at Florida Health. He is currently Vice President of the American Association of Gynecologic Laparoscopy and a Member-at-Large for the Society of Gynecologic Surgeons. He is a leader in minimally invasive surgical techniques and one of the world's most experienced gynecologic robotic surgeons, who has published and taught extensively in the area of minimally invasive surgery, as well as developed surgical instruments that are in use worldwide.

#### Julianne Bingener, M.D.

Dr. Juliane Bingener is Professor of Surgery, Mayo Clinic College of Medicine, and Vice Chair for Quality, Safety and Service in the Mayo Clinic Department of Surgery. She has a joint appointment in the Division of Gastroenterology and Hepatology, which supports her clinical interests in minimally invasive surgery, endoscopy, and gastrointestinal disease. Her research focuses on patient reported outcomes and novel technology in the diagnosis and treatment of these diseases. Dr. Bingener's previous work included the development of a Natural Orifice Translumenal Endoscopic Surgery (NOTES) technique for using an omental patch to close perforated ulcers. Her ongoing interests focus on the development, study, and implementation of innovative endoscopic and laparoscopic approaches for gastrointestinal diseases.

### W. Douglas Boyd, M.D.

Dr. Boyd is a Professor of Surgery and Director of Robotics and Biosurgery at the University of California Davis. He is Head of Adult Cardiac Surgery and Surgical Director of the Transcatheter Valve Program. He is recognized for his pioneering work in cardiothoracic surgery and for his use of robotic-assisted surgical systems. He specializes in minimally invasive cardiac and robotic-assisted heart surgery. Dr. Boyd completed the world's first closed-chest, beating-heart coronary artery bypass surgery using a robotic system in 1999. Prior to his appointment as a professor of surgery at UC Davis Health System, Dr. Boyd served as chair of the Department of Cardiothoracic Surgery at the Cleveland Clinic in Florida. As the author of more than 70 peer-reviewed journal articles, Dr. Boyd's research interests include cardiac tissue regeneration using extracellular matrix/stem cells, new techniques for robot-assisted minimally invasive coronary artery revascularization, valve surgery and tele-surgery. He is a graduate of Carleton University in Ottawa, Canada and obtained his medical degree from the University of Ottawa, Canada.

# Demetrius EM Litwin, M.D.

Dr. Demetrius Litwin serves as Chair of Surgery at University of Massachusetts Medical School at Worcester, MA and University of Massachusetts Memorial Medical Center. Dr. Litwin trained in General Surgery at the University of Saskatchewan, and completed a hepatobiliary fellowship at the University of Toronto. He was a leader in educating a large number of surgeons across Canada in basic and advanced laparoscopic techniques. In 1993, Dr. Litwin became the Director of Minimally Invasive Surgery at the University of Toronto. In 1997, he moved to the University of Massachusetts as Chief of Minimally Invasive Surgery. Since 2004, he has been Chairman of Surgery at the University of Massachusetts Medical School and University of Massachusetts Memorial Medical Center, one of the largest Academic Health Sciences Centers in Massachusetts.

# - 15 -

### Vipul Patel, M.D. FACS

Dr. Patel is the medical director of the Global Robotics Institute at Florida Hospital Celebration Health and Medical Director of the Florida Hospital Cancer Institute Urologic Oncology Program. He is the founder of the International Prostate Cancer Foundation (IPCF) and a founding member and now president of the Society of Robotic Surgery. He serves as an honorary professor at the University of Milan, Korea University and Ricardo Palma University in Lima, Peru, and was recently made an honorary professor of the Russian Academy of Science. He is one of the most experienced robotic surgeons in the world and has personally performed over 10,000 robotic prostatectomies. Dr. Patel previously served as director of the Robotic Surgery Program at The Ohio State University in Columbus, Ohio, prior to joining Florida Hospital Celebration Heath in 2008. Dr. Patel is board certified by the American Urological Association and completed his residency and fellowship training at the University of Miami in Florida.

# Lee L. Swanstrom, M.D.

Dr. Swanstrom heads the Division of GI and Minimally Invasive Surgery at the Oregon Clinic and is Director of Providence Health System's Complex GI and Foregut Surgery Postgraduate Fellowship Program. In addition, he is Clinical Professor in the Department of Surgery at Oregon Health & Science University (OHSU), a Director of the American Board of Surgery, and Past President of both the Society of American Gastrointestinal Endoscopic Surgeons (SAGES) and the Fellowship Council (FC). Most recently, he became the Chief Innovations Officer and Director of the Innovations Fellowship at the Institutes des Hôpitalo Universitaires of the University of Strasbourg, France. He is the editor of Surgical Innovation and the author of over 300 scientific papers and 50 book chapters. This has resulted in 13 patents and a successful medical device startup company. He is and has been an investigator on numerous outcomes research studies for new procedures such as Natural Orifice Translumenal Endoscopic Surgery (NOTES) to determine their safety and efficacy for establishing new standards of care. He remains focused on developing innovative approaches to the minimally invasive treatment of foregut and other gastrointestinal disorders.

#### John Valvo, M.D.

Dr. Valvo, a practicing surgeon, is the Executive Director of Robotic and Minimally Invasive Surgery at Rochester General Hospital in Rochester, New York, where he formerly was the Chief of Urology. Following a 20-year career performing open surgery, Dr. Valvo founded the robotic surgery program at Rochester General Hospital in early 2004, which currently ranks in the top two percent of robotic surgery volume in the United States. The program has trained over 30 robotic surgeons and enabled the completion of more than 7,000 robotic urology, general and colorectal surgeries. Dr. Valvo has authored more than 100 scientific articles and helped start many robotic programs in the northeast. His focus on robotic surgery credentialing led to a notable published paper on policy guidelines for robotic surgery. He is a fellow of the American College of Surgeons and American Urological Association, and a member of the Society for Laparoscopic Surgeons.

#### **RISK FACTORS**

Investing in the Company's securities involves a high degree of risk. Before making an investment decision with respect to the Company's securities, potential investors should carefully consider the following risk factors, in addition to the other information included or incorporated by reference into this annual information form, as well as the Company's historical financial statements and related notes. The risks set out below are not the only risks that the Company faces, however management has identified the risks below as specific risks to the Company. If any of the following risks materialize, the Company's business, financial condition, prospects or results of operations will likely suffer. In that case, the trading price of the Company's Common Shares and Warrants could decline and an investor may lose all or part of the money paid to buy the Company's securities.

# - 16 -

#### The Business of the Company - General

#### Additional Financing and Going Concern

The Company will require additional financing in order to continue its research and development program through to completion and take advantage of future opportunities. The ability of the Company to arrange such financing in the future will depend in part upon prevailing capital market conditions, as well as upon the business success of the Company. There can be no assurance that the Company will be successful in its efforts to arrange additional financing on terms satisfactory to the Company. If additional financing is raised by the issuance of shares or convertible securities from treasury, control of the Company may change and shareholders may suffer additional dilution. If additional funds are raised through strategic partnerships, the Company may be required to relinquish rights to its products, or to grant licences on terms that are not favorable to the Company. If adequate funds are not available, or are not available on acceptable terms, the Company may to be able to take advantage of opportunities, or otherwise respond to competitive pressures, which may delay or reduce the Company's operations and ability to remain business and continue as a going concern.

#### History of Losses

The Company has a history of losses, and there is no assurance that any of its contemplated products will generate sustainable earnings, be profitable or provide a return on investment in the future. The Company has not paid dividends in the past. Its directors will determine the future dividend policy of the Company if the Company generates earnings in the future, based on operational circumstances at that time. The Company had negative cash flow from operating activities for its fiscal year ended December 31, 2016 and this negative cash flow is expected to continue.

#### Strategic Alliances

The Company relies upon, and expects to rely upon, strategic alliances with original equipment manufacturers (if and when the Company's technology is commercialized) and medical technology development firms for development contracts, assistance in product design and development, volume purchase orders and manufacturing and marketing expertise. There can be no assurance that the strategic alliances will achieve their goals.

## Dependence on Key Personnel

The Company's future success and growth depends in part upon the experience of key members of management. If, for any reason, any one or more of such key personnel do not continue to be active in the Company's management, the operations and business prospects of the Company could be adversely affected. In particular, the losses of the services of any of the Company's senior management or other key employees integral to the development of its technology and the generation of a functional, commercially viable product, or the inability to attract and retain necessary technical personnel in the future, could have a short term material adverse effect upon the Company's business, financial condition, prospects, operating results and cash flows. The Company does not currently maintain "key man" insurance for any senior management or other key personnel.

### Ability to Attract Qualified Employees to Maintain and Grow Business

The Company expects that its potential expansion into areas and activities requiring additional expertise, such as further pre-clinical studies, regulatory and governmental approvals, manufacturing, sales, marketing and distribution will place additional requirements on its management, operational and financial resources. The Company expects these demands will require an increase in management and scientific and technical personnel and the development of additional expertise by existing management personnel. There is currently aggressive competition for employees who have experience in technology and engineering. The failure to attract and retain such personnel or to develop such expertise could materially adversely affect the Company's business, financial condition and results of operations.



## Breach and Loss of Trade Secret Rights and Other Proprietary Information

The Company relies on trade secrets and confidential information, which it seeks to protect, in part, through confidentiality and non-disclosure agreements with its employees, collaborators, suppliers, and other parties. There can be no assurance that these agreements will not be breached, that the Company would have adequate remedies for any such breach or that its trade secrets and confidential information will not otherwise become known to or independently developed by competitors. The Company might be involved from time to time in litigation to determine the enforceability, scope and validity of its proprietary rights. Any such litigation could result in substantial cost and divert management's attention from operations.

# **Dependence on Third Parties**

The Company is dependent on third parties to conduct its pre-clinical studies and to provide services for certain important aspects of its business. If these third parties do not perform as contractually required or expected, the Company may not be able to obtain regulatory approval for its products, or may be delayed in doing so.

The Company relies on third parties, such as technology design and development firms, contract research organizations, medical institutions, academic institutions, independent clinical investigators and contract laboratories, to conduct technology development, pre-clinical studies, and it expects to continue to do so in the future. The Company relies heavily on these parties for successful execution of technology development and pre-clinical studies, but does not control many aspects of their activities. As a result, many important aspects of product development are outside the direct control of the Company. If the third parties conducting pre-clinical studies do not perform their contractual duties or obligations, do not meet expected recruitment or other deadlines, fail to comply with good laboratory practice regulations, do not adhere to protocols or otherwise fail to generate reliable pre-clinical data, development, approval and commercialization of the Company's products may be extended, delayed or terminated or may need to be repeated, and the Company may not be able to obtain regulatory approval.

# Competition

The robotic surgical market for the Company's products is highly competitive with respect to, among other factors: pricing, product and service quality, and the time required to introduce new products and services. New products may be slow to be accepted into the market or may not be accepted at all. The Company is constantly exposed to the risk that its competitors may implement new technology before the Company does, or may offer lower prices, additional products or services or other incentives that the Company cannot and will not offer. The Company can give no assurances that it will be able to compete successfully against existing or future competitors. Competition in the Company's markets is intense, and the Company expects competition to increase. The market for robotic surgery technologies is susceptible to price reductions among competitors seeking relationships with large and well capitalized businesses.

The Company's ability to compete successfully depends on a number of factors, including:

- the successful identification and development of new products for the Company's core market;
- the Company's ability to anticipate customer and market requirements and changes in technology and industry standards in a timely manner;
- the Company's ability to gain access to and use technologies in a cost-effective manner;
- the Company's ability to introduce cost-effective new products in a timely manner;
- the Company's ability to differentiate its products from its competitors' offerings;
- the Company's ability to gain customer acceptance of its products;
- the performance of the Company's products relative to its competitors' products;

# - 18 -

- the Company's ability to market and sell the Company's products through effective sales channels;
- the Company's ability to establish and maintain effective internal financial and accounting controls and procedures;
- the Company's ability to obtain required regulatory clearances and approvals in a timely manner;
- · the protection of the Company's intellectual property, including its processes, trade secrets and know-how; and
- the Company's ability to attract and retain qualified technical, executive and sales personnel.

#### Infringement of Intellectual Property Rights

The Company's commercial success depends, in part, upon the Company not infringing intellectual property rights of others. A number of medical device and robotic surgery companies and other third parties have been issued patents and other proprietary rights, may have filed applications for patents and other proprietary rights, and may obtain additional patents and other proprietary rights, for technologies similar or identical to those being developed or utilized by the Company. Accordingly, there may currently exist third party patents, patent applications or other proprietary rights that may require the Company to alter its technology or proposed products, obtain licenses, or cease certain activities. The Company may become subject to claims by third parties that the Company's technology or products infringes the third parties' intellectual property rights for any reason, including due to the growth of products in target markets, the overlap in functionality of those products and the prevalence of products. The Company may become subject to these other provides and the prevalence of products. The Company may become subject to the directly by the third parties, or through indemnities against these claims that it may provide to end-users, manufacturer's representatives, distributors, value added resellers, system integrators and original equipment manufacturers.

Litigation before the courts of jurisdictions, or proceedings before patent offices, may be necessary to determine the scope, enforceability and validity of third party proprietary rights and the Company's proprietary rights. Some of the Company's competitors have, or are affiliated with companies having, substantially greater resources than the Company and these competitors may be able to sustain the costs of complex intellectual property litigation and proceedings to a greater degree and for a longer period of time than the Company. Regardless of their merit, any claims relating to intellectual property scope, enforceability, validity, or infringement could be time consuming to evaluate and defend, result in costly litigation, cause product shipment delays or stoppages, divert management's attention and focus away from the business, subject the Company to significant liabilities and equitable remedies, including injunctions, require the Company to enter into costly royalty or licensing agreements and/or require the Company to modify or stop developing or commercializing certain technologies and products unless it obtains a license from a third party. There can be no assurance that the Company would be able to obtain any such license on commercially favourable terms or at all. If it does not obtain such a license, it could be required to cease the development and sale of certain of its products.

# Intellectual Property

There is no guarantee that the patent applications owned by the Company will be granted, or, even if allowed to grant, that the patent applications will be granted in their current form or granted with a scope of protection sufficient to protect the Company's commercially valuable technology. The scope of protection, if any, that may be afforded by the patent applications of the Company is uncertain. Further, even if patents issue from the Company's pending or future applications, those issued patents and any previously assigned patents of the Company may be invalid or have a narrower scope of protection, and may be subject to invalidation proceedings commenced by third parties. The validity of an issued patent may be attacked on a number of different grounds, and such invalidation proceedings are inherently unpredictable. If such an invalidation proceeding to a third party in respect of an issued patent owned by the Company is successful, the subject patent will be ordered invalid and therefore unenforceable.

# - 19 -

The success of the Company will depend, in part, on its ability to obtain and maintain protection over its technology and products and not infringe the proprietary rights of third parties. Despite precautions, it may be possible for a third party to copy or otherwise obtain and use the Company's technology without authorization. There can be no assurance that any steps taken by the Company will prevent misappropriation of its technology. Litigation could result in substantial costs and diversion of resources and could have a material adverse effect on Company's business, operating results and/or financial condition.

### **Current Global Financial Conditions**

Current global financial markets have been subject to increased volatility. Access to financing has been negatively impacted in Canada, the United States and elsewhere. As such, the Company is subject to counter-party risk and liquidity risk. The Company is exposed to various counter-party risks including, but not limited to: (i) risks relating to financial institutions that hold the Company's cash; (ii) risks relating to companies that have payables to the Company or to whom the Company has made prepaid expenditures; and (iii) risks relating to the Company's insurance providers.

The current state of the global financial markets may negatively impact the ability of the Company to obtain loans and other credit facilities in the future and, if obtained, on terms favourable to the Company. If levels of volatility are increased or there is market turmoil, the Company's planned growth could be adversely impacted and the trading price of the Company's securities could be adversely affected.

Customers may reduce or postpone expenditures in view of the uncertainty of the global credit and financial markets and the limitations on available credit. Additional impacts of prevailing global financial conditions may include the inability of key suppliers or distribution partners of the Company to remain solvent and/or to obtain sufficient financing for the development and manufacture of its prototypes and products (at the appropriate stages of development), and sales of its products.

#### Trademarks

The Company does not own or license any trademark registrations for the marks and names that its is currently using in connection with products under development, or for the company's name, in any jurisdiction including the proposed principal markets where the Company plans to market and sell the SPORT Surgical System following regulatory clearance and commercialization of its surgical system. The Company may be unable to obtain or maintain trademark registrations for the marks and names it uses in one or more countries. It is possible that the use of "SPORT", "SPORT Surgical System", "Titan", "Titan Medical" or variations thereof may infringe or contravene the rights, including trademark rights, of other parties in one or more countries. In the event of actual or alleged infringement or contravention of rights, the Company may be a substantial risk of litigation or other legal proceedings in one or more countries relating to the alleged infringement or contravention of another party's trademark rights. These proceedings may occur even if the Company cases using these marks and names. The Company may incur substantial costs to defend and/or enforce its rights, if any, in these marks and names in such legal proceedings. The Company may not be successful in such legal proceedings, and may be required or agree to cease using these marks and names and pay other parties significant amounts of money. The Company may incur substantial costs to change the names and marks used in association with its products. In any such events, the business and operations of the Company could be materially adversely affected.

# Recent Changes in Senior Management of the Company

The future success of the Company will depend in part on the ability of the Company and its senior management team to manage the transition following recent leadership changes and avoid or minimize disruption to the operations of the Company.

# **Conflicts of Interest**

Certain directors, officers and advisors of the Company are also directors, officers, advisors or shareholders of other companies. Such associations may give rise to conflicts of interest from time to time. The directors of the Company will be required by law to act honestly and in good faith with a view to the best interests of the Company and to disclose any interest which they may have in any project or opportunity of the Company. If a conflict arises at a meeting of the board of directors, any director with a conflict will disclose their interest and abstain from voting on such matter. In determining whether or not the Company will participate in any project or opportunity, the board will consider merit of the opportunity and the degree of risk to which the Company may be exposed, along with its financial position at that time.

# **Results of Operations**

The results of operations of the Company will depend upon numerous factors, including:

- the successful development and commercialization of the SPORT Surgical System in a timely manner and in accordance with budgeted expenditures;
- the extent to which the Company's products gain market acceptance;
- actions relating to regulatory matters;
- timing and ability to develop manufacturing and sales and marketing capabilities;
- demand for products;
- the progress of surgical training in the use of products;
- ability to develop, introduce and market new or enhanced versions of the Company's products on a timely basis;
- product quality problems;
- ability to protect proprietary rights and defend against third party challenges; and
- ability to license additional intellectual property rights as required.

# Rapidly Changing Markets Make it Difficult to Forecast Future Operating Results

The Company operates in markets characterized by technological change. The Company will likely be required to reposition its product and service offerings in the future and introduce new products and services as the Company encounters rapidly changing requirements from its customers and increasing competitive pressures. The Company may not be successful in doing so in a timely and responsive manner, or at all. As a result it is difficult to forecast future revenues and plan operating expenses appropriately, which also makes it difficult to predict future operating results.

# Uncertain Market/Uncertain Acceptance of the Company's Technology/Target Market

The market for the Company's proposed technology is relatively new and is likely to undergo substantial development and changes. The market for the Company's technology may develop more slowly than the Company anticipates, in which case the Company may be unable to recover the losses it has incurred in the development of its technology and may never achieve profitability. The Company cannot guarantee that this market will develop as anticipated or that the Company will achieve a market share necessary to achieve profitability and growth.

There is no assurance that physicians and surgeons will choose the Company's products (once they are commercialized) over the products offered by its competitors. There is also no assurance that robotic surgical systems will continue to be used (or their use increased) by potential customers and that robotic surgical technology will be competitive (based on costs and performance factors) with, and preferred over, conventional and well established medical treatment and surgical methods including conventional minimally invasive surgery and open surgery.

## **Technological Advancements**

The existing competitors could advance their products and new competitors could enter the market with superior technology. New and competitive products introduced into the marketplace that are based on or incorporate more advanced technologies may already impact the Company's operating and financial results.

# Insurance and Uninsured Risks

The Company's business is subject to a number of risks and hazards including adverse conditions or changes in the regulatory environment. Such occurrences could result in damage to equipment, personal injury or death, monetary losses and possible legal liability. Despite any insurance coverage which the Company currently has or may secure in the future, the nature of these risks is such that liabilities might exceed policy limits, the liabilities and hazards might not be insurable, or the Company may elect not to insure against such liabilities due to high premium costs or other reasons, in which event the Company could incur significant costs that could have a materially adverse effect upon its financial position.

# Ability to License Other Intellectual Property Rights

The technology of the Company may require the use of other existing technologies and processes which are currently, or in the future will be, subject to patents, copyrights, trademarks, trade secrets and/or other intellectual property rights held by other parties. The Company may need to obtain one or more licenses to use those other existing technologies. If the Company is unable to obtain licenses, on reasonable commercial terms, from the holders of such intellectual property rights, the Company could be required to halt development and manufacturing or redesign its technology, failing which it could bear a substantial risk of litigation for infringement or misappropriation of such intellectual property rights. In any such event, the business and operations of the Company could be materially adversely affected.

# **Government Regulation**

The pre-clinical testing, manufacturing, sale and distribution of the Company's contemplated product requires approvals from Canadian Health Protection Branch, clearance to market from the FDA and European CE Mark approval. Applications for these approvals and clearance have not been made and there can be no assurances that such approvals will be received or if such approvals and clearance are granted, that the Company will be able to comply with the conditions and requirements of such approvals and clearance. Failure to obtain such approvals and clearance or to comply with such conditions and requirements may have a material adverse effect on the Company's business, financial condition and results of operation.

Regulatory requirements and standards for approval of medical devices are subject to change and the adaptation of the Company's technology development program to meet the changing requirements and standards may cause the Company to incur substantial expenditures and may result in substantial delays in the achievement of and changes to the technology development milestones as well as escalations in the corresponding budgets. Such changes may require unanticipated human clinical trials which could add significant expense and substantially lengthen timelines to commercialization. These changes may have an adverse effect on the Company's ability to commercialize its products and its results of operations and financial condition.

# - 22 -

### Profitability

There is no assurance that the Company will earn profits in the future, or that profitability will be sustained. The medical device industry requires significant financial resources, and there is no assurance that future revenues will be sufficient to generate the funds required to continue the Company's business development and marketing activities. If the Company does not have sufficient capital to fund its operations, it may be required to reduce its research and development efforts or in the future reduce its marketing efforts or forego certain business opportunities.

#### **Changes in Government Policy**

The Company's results may be affected by changes in trade, monetary and fiscal policies, laws and regulations, or other activities of the Canadian, United States and foreign governments, agencies and similar organizations. The Company's results may be affected by social and economic conditions which impact the Company's operations.

### Changes in Accounting and Tax Rules

The Company is subject to numerous tax and accounting requirements, and changes in existing accounting or taxation rules or practices, or varying interpretations of current rules or practices, could have a significant adverse effect on the financial results of the Company or the manner in which the Company conducts its business. The Company has issued its financial statements for the year ended December 31, 2016 in accordance with International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board ("IASB").

In the future, the geographic scope of the Company's business may expand, and such expansion will require it to comply with the tax laws and regulations of multiple jurisdictions. Requirements as to taxation vary substantially among jurisdictions. Complying with the tax laws of these jurisdictions can be time consuming and expensive and could potentially subject the Company to penalties and fees in the future if it were to inadvertently fail to comply. In the event the Company were to inadvertently fail to comply with applicable tax laws, this could have a material adverse effect on the business, results of operations, and financial condition of the Company.

### **Contingent Liabilities**

Contingent liabilities for contractual and other claims with customers, development firms, suppliers and former employees to which the Company may become party to in the future may have a material adverse effect on its financial position. Please also see the discussion regarding a contingent liability to Longtai Medical Inc. under "Development of the Business – Three Year History – 2016 and 2015".

#### The Business of the Company - Research and Development Operations

#### Uncertainty as to Product Development and Commercialization Milestones

The Company has established product development and commercialization milestones that it uses to assess its progress toward developing a commercially viable product. These milestones relate to technology and design improvements as well as to dates for achieving development goals and projected expenditures. To assess progress, the Company tests and evaluates its technology under simulated conditions. If such evaluations indicate technical defects or failure to meet cost or performance goals, the Company's commercialization schedule could be delayed and potential purchasers of its initial commercial systems may decline to purchase them or they may choose to purchase alternative technologies. Whether or not the Company meets its milestones, there is no assurance that the Company's technology will be successful in the market. The Company expects that additional specific milestones could be identified as the development of its SPORT Surgical System progresses, or existing milestones, budgets and the schedule for completion of each milestone may change depending on a number of factors including the results of the Company's development program, the availability of financing and the ability of development firms engaged by the Company to completed work assigned to them.

#### Product and Services Not Completely Developed

The future success of the Company is substantially dependent on a continued research and development effort thus far directed by certain of its key managers. In addition to being capital intensive, research and development activities relating to sophisticated technologies, such as those of the Company, are inherently uncertain as to future success and the achievement of a desired result. If delays or problems occur during the Company's ongoing research and development process, important financial and human resources may need to be diverted toward resolving such delays or problems. Further, there is a material risk that the Company's research and development activities may not result in a functional, commercially viable product or one that is approved by regulatory authorities.

## Manufacturing Risks

The manufacture of prototypes and products, once commercialized, will involve complex processes and the manufacturers engaged by the Company may encounter difficulties initiating and maintaining production. In the future, there could be a significant disruption in the supply of materials or products from current sources or, in the event of a disruption, the Company might not be able to locate alternative suppliers of materials, components or products of comparable quality at an acceptable price, or at all. In addition, the Company cannot be certain that its manufacturers will be able to complete the production of the prototypes or to fill its orders for its products, once commercialized, in a timely manner. If the Company experiences significant increased demand, or needs to replace an existing manufacturer, there can be no assurance that additional supplies of product or additional manufacturing capacity will be available when required on terms that are acceptable to the Company, or at all. In addition, even if the Supply of materials or manufacture of the Company's products could have an adverse effect on the Company's ability to meet customer demand for its products and result in lower revenues and net income.

### **Reliance on External Suppliers and Development Firms**

The Company is dependent on external suppliers and development firms to conduct its technology research and development and manufacturing of evaluation units of the SPORT Surgical System. If these external firms seek to impose conditions on their obligations to conduct their work in addition to or different from the terms set forth in their engagement agreements and the Company is unable to satisfy those conditions or they do not otherwise perform as contractually required or expected, the Company may not be able to complete the development of the SPORT Surgical System, or the Company may be delayed in doing so, and the costs for developing its products may significantly increase beyond those forecasted. In the event that external development firms do not resume, or they do not otherwise carry on, the development work on the SPORT Surgical System on conditions and in a manner that is agreeable to the Company, it may engage other firms to take on the development work and in that case, the estimated costs of the development milestones set forth in this prospectus supplement may increase and the schedule for completion of each milestone may be delayed.

The Company relies heavily on external parties for successful execution of the SPORT Surgical System development program, but does not control many aspects of their activities. As a result, many important aspects (including costs and timing) of product development are outside the direct control of the Company.

The Company is responsible for ensuring that the SPORT Surgical System is being developed to meet the guidelines and requirements of the FDA and other regulatory authorities, applicable laws and regulations and industry standards. The Company's reliance on third parties does not relieve it of these responsibilities.

Additionally, if the external firms conducting pre-clinical studies do not perform their contractual duties or obligations, do not meet expected deadlines, fail to comply with good laboratory practice regulations, do not adhere to the Company's study protocols or otherwise fail to generate reliable clinical data, development, approval and commercialization of its products, may be extended, delayed or terminated or may need to be repeated, costs may significantly increase and the Company may not be able to obtain regulatory approval within the time frames forecasted, if at all.

- 24 -

# Product Defect Risk

A malfunction or the inadequate design of the Company's contemplated products could result in product liability or other tort claims. Accidents involving the Company's products could lead to personal injury, death or physical damage. Any liability for damages resulting from malfunctions could be substantial and could adversely affect the Company's business and results of operations. In addition, a well-publicized actual or perceived problem could adversely affect the market's perception of the Company's products. This could result in a decline in demand for the Company's products, which would adversely affect its financial condition and results of operations.

If any of the Company's contemplated products prove defective, the Company may be required to redesign or recall such products. This redesign or recall may cause the Company to incur significant expenses, disrupt sales and adversely affect the reputation for the Company and its products, which could adversely impact its revenue, operating results and profitability.

## Supplier

The Company is substantially dependent on a small number of external development and manufacturing firms for its technology and products. Key suppliers and development firms could go out of business, be purchased by competitors or infringe on another company's intellectual property and may consequently be unable to continue to supply the Company. In these circumstances, the Company may be unable to find alternative suppliers in a timely manner and the resulting delay may have an adverse effect on the Company's operating results and financial condition.

### Securities of the Company

# Stock Price Volatility

The Common Shares and certain Warrants of the Company trade in Canada on the Toronto Stock Exchange and the Common Shares also trade in the United States on the OTCQX. The Company cannot predict the extent to which investor interest will lead to the development of an active and liquid trading market in its Common Shares and Warrants and it is possible that an active and liquid trading market will not develop or be sustained. Some companies that have volatile market prices for their securities have had securities class action lawsuits filed against them. If a lawsuit were to be commenced against the Company, regardless of its outcome, it could result in substantial costs and a diversion of management's attention and resources. The price of Common Shares and Warrants may fluctuate in response to a number of events, including but not limited to:

- its quarterly operating results;
- sales of the Company's Common Shares by a principal shareholder;
- future announcements concerning the business of the Company or of its competitors;
- the failure of securities analysts to cover the Company and/or changes in financial forecasts and recommendations by securities analysts;
- actions of the Company's competitors;
- actions of the Company's suppliers;
- actions of any medical technology development firms engaged by the Company;
- actions of directors and officers regarding purchases and sales of shares;
- general market, economic and political conditions;
- natural disasters, terrorist attacks and acts of war; and
- the other risks described in this section.



#### Future Share Sales

Additional equity financings or other share issuances by the Company could adversely affect the market price of the Company's shares. Sales by existing shareholders of a large number of shares of the Company's shares in the public market and the sale of shares issued in connection with acquisitions or strategic alliances, or the perception that such additional sales could occur, could cause the market price of the Company's shares to drop.

# Limited Operating History

The Company is a robotic surgery technology development company with a limited operating history. Future operating results may be difficult to predict. The Company is in the development stage and has been engaged in research and product development since its inception. There are many regulatory steps that must be completed as part of the development program before the Company's technology can be commercialized and a product is available for the market. These regulatory steps are costly and uncertain. The future success of the Company's business will depend on the ability to design and obtain regulatory approvals and clearances for new products, manufacture and assemble current and future products in sufficient quantities in accordance with applicable regulatory requirements and at lower costs, which the Company may be unable to do. There is a limited history of operations upon which to evaluate the Company's business and its prospects. Operating expenses have increased since inception due to the development program. The lack of a significant operating history may limit an investor's ability to make a comparative evaluation of the Company, its products and its prospects. The Company has not generated revenue since its inception.

# Fluctuating Financial Results

The Company's financial results may vary significantly from period to period. The financial results may fluctuate as a result of a number of factors that may be outside of the Company's control, which may cause the market price of the Common Shares to fall. For these reasons, comparing the Company's operating results on a period-to-period basis may not be meaningful, and an investor should not rely on past results as an indication of future performance. Financial results may be negatively affected by any of the risk factors listed in this "Risk Factors" section.

#### Effect of Estimates Regarding Milestones

For planning purposes, the Company estimates and may disclose timing of a variety of clinical, regulatory and other milestones. The Company bases its estimates on present facts and a variety of assumptions. Many underlying assumptions are outside the control of the Company such as the ability to perform pre-clinical studies, obtain access to preclinical evaluation sites as expected or obtain approvals or clearance from regulatory bodies such as the FDA. If the Company does not achieve milestones consistent with investors' expectations, the price of its Common Shares and Warrants would likely decline.

#### **Currency Fluctuations**

The Company's operating results are subject to fluctuations in foreign currency exchange rates.

#### DIVIDENDS

The Company has not declared or paid dividends in the past. The Company presently intends to retain future earnings, if any, to finance the expansion and growth of its business. Any future determination to pay dividends will be at the discretion of the Company's board of directors and will depend on the Company's financial conditions, results of operations, capital requirements and other factors the board of directors deems relevant. The Company had negative cash flow from operating activities for its fiscal year ended December 31, 2016 and the negative cash flow is expected to continue.



There are no other restrictions on the Company's ability to pay dividends. However, the *Business Corporations Act*(Ontario) does not permit a corporation to pay dividends if the corporation is, or would after the payment, be unable to pay its liabilities as they become due or the realizable value of the corporation's assets would thereby be less than the aggregate of its liabilities and stated capital of all classes. In addition, the terms of any future debt or credit facility may preclude the Company from paying dividends.

# CAPITAL STRUCTURE

The authorized capital of the Company consists of an unlimited number of Common Shares of which 166,511,446 were issued and outstanding as at December 31, 2016. The holders of Common Shares are entitled to receive notice of and to attend all annual and special meetings of the Company's shareholders and to one vote in respect of each Common Share held at the record date for each such meeting. The holders of Common Shares are entitled, at the discretion of the Board of Directors, to receive out of any or all of the Company's profits or surplus properly available for the payment of dividends, any dividend declared by the Board of Directors and payable by the Company on the Common Shares. The holders of the Company upon liquidation, dissolution or winding-up or other distribution of the assets of the Company. Such participation will be subject to the rights, privileges, restrictions and conditions attached to any of the Company's escurities issued and outstanding at such time ranking in priority to the Common Shares upon the liquidation, dissolution or winding-up of the Company. Common Shares are only as fully paid and are non-assessable.

The Company also had outstanding as at December 31, 2016 an aggregate of 83,102,520 Warrants that were issued in connection with prior offerings. These Warrants include:

| Ticker<br>Symbol | Issue<br>Date      | Expiry<br>Date     | Number<br>Issued | Number<br>Outstanding | Exercise<br>Price<br>(CDN \$) | Potential<br>Proceeds<br>of exercise<br>of<br>Warrants<br>(CDN \$) <sup>(1)</sup> |
|------------------|--------------------|--------------------|------------------|-----------------------|-------------------------------|-----------------------------------------------------------------------------------|
| NOT LISTED       | March 14, 2012     | March 14, 2017     | 1,986,755        | 390,729               | \$1.77                        | 691,590                                                                           |
| TMD.WT.C         | March 13, 2013     | March 13, 2018     | 6,260,763        | 5,260,705             | \$1.25                        | 6,575,881                                                                         |
| TMD.WT.D         | February 19, 2014  | February 19, 2017  | 9,142,500        | 8,317,856             | \$2.00                        | 16,635,712                                                                        |
| TMD.WT.E         | April 23, 2014     | April 23, 2017     | 12,203,189       | 12,346,914            | \$2.75                        | 33,954,014                                                                        |
| TMD.WT.F.        | November 16, 2015  | November 16, 2020  | 7,012,195        | 7,012,195             | \$1.60                        | 11,219,512                                                                        |
| TMD.WT.G         | February 12, 2016  | February 12, 2021  | 11,670,818       | 11,600,818            | \$1.00                        | 11,600,818                                                                        |
|                  | February 23, 2016  | February 23, 2021  | 1,746,789        | 1,746,789             | \$1.00                        | 1,746,789                                                                         |
| TMD.WT.H         | March 31, 2016     | March 31, 2021     | 15,054,940       | 15,054,940            | \$1.20                        | 18,065,928                                                                        |
|                  | April 14, 2016     | April 14, 2021     | 2,258,241        | 2,258,241             | \$1.20                        | 2,709,889                                                                         |
| TMD.WT.I         | September 20, 2016 | September 20, 2021 | 17,083,333       | 17,083,333            | \$0.75                        | 12,812,500                                                                        |
|                  | October 27, 2016   | October 27, 2021   | 2,030,000        | 2,030,000             | \$0.75                        | 1,522,500                                                                         |
| TOTAL            |                    |                    | 86,449,523       | 83,102,520            |                               | 117,535,133                                                                       |

Notes:

1. Assumes that Warrants are exercised in full. There is no assurance any Warrants will be exercised.

- 27 -

All of the Warrants referenced in the table above are governed by warrant indentures (the "Warrant Indentures") entered into between the Company and Computershare Limited (or its predecessor, Olympia Transfer Services Inc.), as warrant agent thereunder, and/or warrant certificates, as the case may be, dated the date of issue of each series of warrants. A copy of each Warrant Indenture can be found on SEDAR at www.sedar.com.

The Company also has outstanding stock options ("Options") granted to directors, officers and employees of the Company. At December 31, 2016, there were 7,202,250 Options outstanding. Each Option entitles its holder to purchase one Common Share of the Company at an exercise price determined by the board of directors. The terms of each Option including the number of Options granted, the exercise price, the expiry date and any vesting provisions were determined by the Company's board of directors at the time of the grant of each Option. Please see the Company's notes to the annual audited financial statements for the 2016 fiscal year, which provides more detailed disclosure on the Options outstanding and the terms thereof.

# MARKET FOR SECURITIES

All references to currency in this section under the heading, "Market for Securities" is in Canadian dollars.

# Summary of Monthly Trading - Common Shares

The Company's Common Shares are listed for trading in Canada on the TSX under the symbol "TMD". The Common Shares of the Company also began trading on the international tier of the OTCQX market in the United States under the ticker symbol "TITXF" as of February 24, 2012.

The following table shows the close, high and low trading prices and the volume of shares traded for the Common Shares of the Company on the TSX for each month in 2016.

| Month<br>(2016) | High   | Low     | Close  | Volume     |
|-----------------|--------|---------|--------|------------|
| December        | \$0.45 | \$0.31  | \$0.32 | 3,506,265  |
| November        | \$0.53 | \$0.385 | \$0.41 | 2,787,345  |
| October         | \$0.55 | \$0.355 | \$0.51 | 8,390,162  |
| September       | \$0.71 | \$0.345 | \$0.36 | 9,345,223  |
| August          | \$0.89 | \$0.49  | \$0.66 | 4,360,204  |
| July            | \$0.90 | \$0.78  | \$0.85 | 1,425,302  |
| June            | \$0.88 | \$0.75  | \$0.87 | 2,041,214  |
| May             | \$0.92 | \$0.74  | \$0.78 | 4,180,293  |
| April           | \$0.95 | \$0.85  | \$0.89 | 4,813,720  |
| March           | \$1.43 | \$0.77  | \$0.85 | 13,825,027 |
| February        | \$1.83 | \$0.73  | \$0.80 | 10,585,685 |
| January         | \$1.35 | \$1.00  | \$1.30 | 1,429,463  |

#### Summary of Monthly Trading - June 2016 Warrants

The Company's June 2016 Warrants were listed for trading on the TSX as of August 11, 2011 under the symbol "TMD.WT.A". The following table shows the close, high and low trading prices and the volume of warrants traded for the June 2016 Warrants of the Company on the TSX for each month in 2016 prior to their expiry on June 21, 2016.

|           | High    | Low     | Close   | Volume    |
|-----------|---------|---------|---------|-----------|
| December  | -       | -       | -       | -         |
| November  | -       | -       | -       | -         |
| October   | -       | -       | -       | -         |
| September | -       | -       | -       | -         |
| August    | -       | -       | -       | -         |
| July      | -       | -       | -       | -         |
| June 1-21 | \$0.005 | \$0.005 | \$0.005 | 1,064,635 |
| May       | \$0.015 | \$0.005 | \$0.015 | 554,800   |
| April     | \$0.035 | \$0.01  | \$0.02  | 45,500    |
| March     | \$0.05  | \$0.03  | \$0.03  | 16,300    |
| February  | \$0.55  | \$0.04  | \$0.45  | 155,500   |
| January   | \$0.06  | \$0.05  | \$0.05  | 36,500    |

# Summary of Monthly Trading – December 2016 Warrants

The Company's December 2016 Warrants were listed for trading on the TSX as of January 2012 under the symbol "TMD.WT.B". The following table shows the close, high and low trading prices and the volume of warrants traded for the December 2016 Warrants of the Company on the TSX for each month in 2016 prior to their expiry on December 22, 2016.

| Month<br>(2015) | High    | Low     | Close   | Volume |
|-----------------|---------|---------|---------|--------|
| December 1- 21  | \$0.005 | \$0.005 | \$0.005 | 10,000 |
| November        | -       | -       | -       | -      |
| October         | -       | -       | -       | -      |
| September       | -       | -       | -       | -      |
| August          | \$0.005 | \$0.005 | \$0.005 | 30,000 |
| July            | \$0.02  | \$0.015 | \$0.02  | 74,295 |
| June            | \$0.03  | \$0.025 | \$0.025 | 2,000  |
| May             | \$0.03  | \$0.005 | \$0.03  | 36,900 |
| April           | \$0.02  | \$0.01  | \$0.2   | 33,000 |
| March           | \$0.10  | \$0.02  | \$0.03  | 36,000 |
| February        | \$0.19  | \$0.19  | \$0.19  | 5,000  |
| January         | -       | -       | \$.08   | -      |

#### Summary of Monthly Trading - March 2018 Warrants

The Company's March 2018 Warrants were listed for trading on the TSX as of March 25, 2013 under the symbol "TMD.WT.C". The following table shows the close, high and low trading prices and the volume of warrants traded for the March 2018 Warrants of the Company on the TSX for each month in 2016.

| Month<br>(2016) | High   | Low     | Close  | Volume |
|-----------------|--------|---------|--------|--------|
| December        | \$0.04 | \$0.015 | \$0.04 | 63,000 |

| Month<br>(2016) | High    | Low     | Close   | Volume  |
|-----------------|---------|---------|---------|---------|
| November        | \$0.015 | \$0.015 | \$0.015 | 1,000   |
| October         | \$0.095 | \$0.095 | \$0.095 | 300     |
| September       | \$0.095 | \$0.095 | \$0.095 | 1,350   |
| August          | -       | -       | -       | -       |
| July            | -       | -       | -       | -       |
| June            | -       | -       | -       | -       |
| May             | \$0.15  | \$0.10  | \$0.15  | 46,936  |
| April           | \$0.16  | \$0.12  | \$0.12  | 110,600 |
| March           | \$0.38  | \$0.12  | \$0.12  | 179,712 |
| February        | \$0.41  | \$0.15  | \$0.20  | 152,000 |
| January         | \$0.40  | \$0.25  | \$0.40  | 97,7000 |

# Summary of Monthly Trading – February 2017 Warrants

The Company's February 2017 Warrants were listed for trading on the TSX-V as of March 28, 2014 and on the TSX of September 30, 2014, under the symbol "TMD.WT.D". The following table shows the close, high and low trading prices and the volume of warrants traded for the February 2017 Warrants of the Company for each month in 2016.

| Month<br>(2016) | High    | Low     | Close   | Volume  |
|-----------------|---------|---------|---------|---------|
| December        | \$0.005 | \$0.005 | \$0.005 | 100,000 |
| November        | \$0.010 | \$0.005 | \$0.005 | 242,700 |
| October         | -       | -       | \$0.005 | -       |
| September       | \$0.015 | \$0.005 | \$0.005 | 23,000  |
| August          | \$0.01  | \$0.005 | \$0.01  | 148,000 |
| July            | -       | -       | \$0.03  | 500     |
| June            | \$0.03  | \$0.03  | \$0.03  | 1,000   |
| May             | -       | -       | -       | -       |
| April           | -       | -       | -       | -       |
| March           | \$0.09  | \$0.09  | \$0.09  | 1,500   |
| February        | -       | -       | \$0.07  | -       |
| January         | \$0.08  | \$0.06  | \$0.07  | 209,300 |

# Summary of Monthly Trading – April 2017 Warrants

The Company's April 2017 Warrants were listed for trading on the TSX-V as of May 7, 2014 and on the TSX as of September 30, 2014, under the symbol "TMD.WT.E". The following table shows the close, high and low trading prices and the volume of warrants traded for the April 2017 Warrants of the Company for each month in 2016.

| Month<br>(2016) | High    | Low     | Close   | Volume  |
|-----------------|---------|---------|---------|---------|
| December        | \$0.005 | \$0.005 | \$0.005 | 78,000  |
| November        | -       | -       | -       | -       |
| October         | -       | -       | -       | -       |
| September       | \$0.005 | \$0.005 | \$0.005 | 5,000   |
| August          | \$0.005 | \$0.005 | \$0.005 | 101,000 |
| July            | -       | -       | -       | -       |
| June            | \$0.015 | \$0.015 | \$0.015 | 4,000   |
| May             | -       | -       | -       | -       |



| Month<br>(2016) | High   | Low     | Close   | Volume  |
|-----------------|--------|---------|---------|---------|
| April           | \$0.03 | \$0.02  | \$0.02  | 26.000  |
| March           | \$0.10 | \$0.01  | \$0.03  | 174,346 |
| February        | \$0.08 | \$0.025 | \$0.025 | 113,500 |
| January         | \$0.06 | \$0.025 | \$0.055 | 8,000   |

# Summary of Monthly Trading - November 2020 Warrants

The Company's November 2020 Warrants were listed for trading on the TSX as of November 17, 2015, under the symbol "TMD.WT.F". The following table shows the close, high and low trading prices and the volume of warrants traded for the November 2020 Warrants of the Company for each month in 2016.

| Month<br>(2016) | High    | Low     | Close   | Volume    |
|-----------------|---------|---------|---------|-----------|
| December        | \$0.045 | \$0.045 | \$0.045 | 500       |
| November        | \$0.045 | \$0.045 | \$0.045 | 11,000    |
| October         | \$0.07  | \$0.05  | \$0.05  | 4,075     |
| September       | \$0.065 | \$0.045 | \$0.45  | 125,000   |
| August          | \$0.075 | \$0.05  | \$0.055 | 206,850   |
| July            | \$0.11  | \$0.08  | \$0.08  | 41,500    |
| June            | \$0.11  | \$0.085 | \$0.11  | 26,500    |
| May             | \$0.11  | \$0.06  | \$0.75  | 97,250    |
| April           | \$0.145 | \$0.085 | \$0.11  | 268,000   |
| March           | \$0.20  | \$0.07  | \$0.10  | 785,475   |
| February        | \$0.41  | \$0.065 | \$0.09  | 3,108,169 |
| January         | \$0.22  | \$0.15  | \$0.22  | 210,400   |

# Summary of Monthly Trading – February 2021 Warrants

The Company's February 2021 Warrants were listed for trading on the TSX as of February 17, 2016, under the symbol "TMD.WT.G". The following table shows the close, high and low trading prices and the volume of warrants traded for the February 2021Warrants of the Company for each month in 2016.

| Month<br>(2016) | High    | Low     | Close   | Volume    |
|-----------------|---------|---------|---------|-----------|
| December        | \$0.05  | \$0.05  | \$0.05  | 17,000    |
| November        | \$0.06  | \$0.05  | \$0.05  | 16,500    |
| October         | \$0.08  | \$0.055 | \$0.06  | 55,000    |
| September       | \$0.13  | \$0.055 | \$0.06  | 432,700   |
| August          | \$0.20  | \$0.055 | \$0.145 | 579,391   |
| July            | \$0.23  | \$0.18  | \$0.21  | 304,575   |
| June            | \$0.24  | \$0.19  | \$0.20  | 547,360   |
| May             | \$0.225 | \$0.175 | \$0.175 | 353,170   |
| April           | \$0.25  | \$0.19  | \$0.205 | 876,566   |
| March           | \$0.39  | \$0.105 | \$0.21  | 5,297,457 |
| February        | -       | -       | -       | -         |
| January         | -       | -       | -       | -         |

#### Summary of Monthly Trading - March 2021 Warrants

The Company's March 2021 Warrants were listed for trading on the TSX as of March 31, 2016, under the symbol "TMD.WT.H". The following table shows the close, high and low trading prices and the volume of warrants traded for the March 2021Warrants of the Company for each month in 2016.

| Month<br>(2016) | High   | Low     | Close   | Volume    |
|-----------------|--------|---------|---------|-----------|
| December        | \$0.06 | \$0.04  | \$0.06  | 21,500    |
| November        | \$0.05 | \$0.03  | \$0.05  | 126,000   |
| October         | \$0.08 | \$0.04  | \$0.08  | 89,100    |
| September       | \$0.07 | \$0.05  | \$0.05  | 124,366   |
| August          | \$0.15 | \$0.06  | \$0.09  | 327,100   |
| July            | \$0.16 | \$0.135 | \$0.16  | 86,200    |
| June            | \$0.16 | \$0.13  | \$0.135 | 737,081   |
| May             | \$0.15 | \$0.12  | \$0.135 | 1,444,300 |
| April           | \$0.18 | \$0.08  | \$0.14  | 4,351,190 |
| March           | -      | -       | -       | -         |
| February        | -      | -       | -       | -         |
| January         | -      | -       | -       | -         |

## Summary of Monthly Trading - September 2021 Warrants

The Company's September 2021 Warrants were listed for trading on the TSX as of September 20, 2016, under the symbol "TMD.WT.I". The following table shows the close, high and low trading prices and the volume of warrants traded for the September 2021Warrants of the Company for each month in 2016.

| Month<br>(2016) | High   | Low    | Close   | Volume    |
|-----------------|--------|--------|---------|-----------|
| December        | \$0.08 | \$0.05 | \$0.55  | 926.500   |
| November        | \$0.08 | \$0.05 | \$0.05  | 1,786,817 |
| October         | \$0.09 | \$0.07 | \$0.075 | 1,101,000 |
| September       | \$0.10 | \$0.07 | \$0.08  | 1,154,800 |
| August          | -      | -      | -       | -         |
| July            | -      | -      | -       | -         |
| June            | -      | -      | -       | -         |
| May             | -      | -      | -       | -         |
| April           | -      | -      | -       | -         |
| March           | -      | -      | -       | -         |
| February        | -      | -      | -       | -         |
| January         | -      | -      | -       | -         |

### **ESCROWED SECURITIES**

As of December 31, 2016, there were no Common Shares of the Company held, to the Company's knowledge, in escrow or that were subject to a contractual restriction on transfer.

## DIRECTORS AND OFFICERS

The following sets out details respecting the directors and executive officers of the Company, as of the date of this Annual Information Form. The names, the municipalities of residence, the positions held by each in Titan and the principal occupation for the past five years of the directors and executive officers of the Company are as follows:

| Name and<br>Municipality of<br>Residence                   | Offices Held                                       | Director Since | Principal Occupation(s)<br>During the Five-Year Period<br>Ending December 31, 2016                                                                                                                                                                                                                                                                                                                             |
|------------------------------------------------------------|----------------------------------------------------|----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| David J. McNally                                           | President, Chief Executive Officer<br>and Director | 2017           | President and CEO of Titan from January 3, 2017 and January 9, 2017 respectively. Prior thereto, from October, 2009 to August 2016, Mr. McNally served as the founder, President, Chief Executive Officer and Chairman of the Board of Directors of Domain Surgical, Inc., a privately held developer, manufacturer and marketer of a new advanced energy surgery platform for precise cutting and coagulation |
| Stephen Randall<br>Toronto, Ontario                        | Chief Financial Officer and<br>Secretary           | n/a            | of soft tissue, and reliable vessel sealing in open and laparoscopic<br>procedures.<br>Chief Financial Officer of Titan since March 2010. Prior thereto, Mr.<br>Randall served in senior financial roles with private, publicly-traded<br>and start-up companies in the technology sector. Mr. Randall holds the<br>Canadian CPA and CGA designations.                                                         |
| Martin C. Bernholtz(1)(2)<br>Thornhill, Ontario            | Chairman & Director                                | 2008           | Vice President, Finance of Kerbel Group Inc., a Toronto-based land development company, since 1998.                                                                                                                                                                                                                                                                                                            |
| John E. Barker(1)(2)<br>Burlington, Ontario                | Director                                           | 2009           | Corporate director. Previously served as Senior Vice President of Finance, CFO and in other senior executive positions at Zenon Environmental Inc. from 2000 to 2006.                                                                                                                                                                                                                                          |
| Dr. Bruce Wolff <sup>(1)</sup> (2)<br>Rochester, Minnesota | Director                                           | 2014           | Surgeon, Mayo Clinic since 1982; and Professor of Surgery, Mayo<br>Clinic College of Medicine and Emeritus Chair of the Division of<br>Colon & Rectal Surgery, Mayo Clinic.                                                                                                                                                                                                                                    |

# Notes:

(1) Member of Audit Committee of the Company.

(2) Member of Compensation Committee of the Company.

None of the directors or executive officers of the Company is, at the date hereof, or has within 10 years before the date hereof, been a director, chief executive officer or chief financial officer of any other issuer that (a) was the subject of a cease trade, an order similar to a cease trade order or an order that denied the issuer access to any statutory exemptions under securities legislation, that was in effect for a period of more than 30 consecutive days (an "Order"), that, while that person was acting in the capacity as a director, chief executive officer or chief financial officer, or (b) was subject to an order that was issued after that person ceased to be a director, chief executive officer or chief financial officer.

- 33 -

None of the directors or executive officers of the Company (a) is, at the date hereof, or has within 10 years before the date hereof, been a director or executive officer of any other issuer that, while that person was acting in that capacity, or within a year of that person ceasing to act in that capacity, became bankrupt, made a proposal under any legislation relating to bankruptcy or insolvency or was subject to or instituted any proceedings, arrangement or compromise with creditors or had a receiver, manager or trustee appointed to hold its assets, or (b) has, within 10 years before the date hereof, become bankrupt, made a proposal under any legislation relating to bankruptcy or insolvency or was subject to or instituted any proceedings, arrangement or compromise with creditors or had a receiver, manager or trustee appointed to hold its assets

None of the directors or executive officers of the Company has been subject to (a) any penalties or sanctions imposed by a court relating to securities legislation or by a securities regulatory authority, or (b) any other penalties or sanctions imposed by a court or regulatory body that would likely be considered important to a reasonable investor in making an investment decision.

The term of each director will expire at the next annual meeting of the Company. As at December 31, 2016, the directors and executive officers of the Company, as a group, beneficially owned, directly or indirectly, or exercised control or direction over 6,113,601 Common Shares of the Company, representing approximately 3.67% of the Company's outstanding Common Shares. The information as to securities beneficially owned or over which control or direction is exercised is not within the knowledge of the Company and has been furnished by the directors and executive officers individually. There are no material conflicts of interest among any of the directors or executive officers and the Company, other than any potential conflicts as disclosed above. See "*Risk Factors – Conflicts of Interest*".

# AUDIT COMMITTEE

## Audit Committee's Charter

See Schedule "A".

#### **Composition of the Audit Committee**

As of December 31, 2016, the table below sets out the members of the Audit Committee and states whether they are financially literate and/or independent.

| Director            | Independent | Financially Literate |  |
|---------------------|-------------|----------------------|--|
| John E. Barker      | Yes         | Yes                  |  |
| Martin C. Bernholtz | Yes         | Yes                  |  |
| Dr. Bruce Wolff     | Yes         | Yes                  |  |

Two directors on the Corporation's Audit Committee (namely, John E. Barker and Martin C. Bernholtz) have been senior officers and/or directors of publicly traded companies and business executives for a number of years. In these positions, each director has been responsible for receiving financial information relating to the entities of which they were directors. They had, or have developed, an understanding of financial statements generally and understand how those statements are used to assess the financial position of a company and its operating results. Each member of the Audit Committee also has a significant understanding of the business in which the Corporation is engaged and has an appreciation for the relevant accounting principles for the Corporation's business.

#### - 34 -

#### **Pre-Approval Policies and Procedures**

The Audit Committee has adopted a pre-approval policy with respect to permitted non-audit services proposed to be provided by the external auditor as disclosed in paragraph 3(a)(iv) of the Audit Committee's Charter (Schedule "A").

#### **External Auditor Service Fees**

The table below sets out all fees billed by the Corporation's external auditor in respect of the last two financial years.

| Financial Year Ended | Audit Fees <sup>(1)</sup> | Audit-Related Fees <sup>(2)</sup> | Tax Fees <sup>(3)</sup> | All Other Fees <sup>(4)</sup> |
|----------------------|---------------------------|-----------------------------------|-------------------------|-------------------------------|
| December 31, 2016    | \$42,083                  | \$25,774                          | \$1,512                 | \$44,143                      |
| December 31, 2015    | \$28,606                  | \$19,089                          | \$2,072                 | \$57,393                      |

#### Notes:

1. "Audit Fees" are fees billed by the Corporation's external auditor for services provided in auditing the Corporation's financial statements for the financial year.

 "Audit-Related Fees" are fees not included in Audit Fees that are billed by the auditor for assurance and related services that are reasonably related to performing the audit or reviewing the Corporation's interim financial statements.

3. "Tax Fees" are fees billed by the auditor for professional services rendered for tax compliance, tax advice and tax planning.

4. "All Other Fees" are fees billed by the auditor for products and services not included in the previous categories. These fees relate primarily to the work performed by the Auditors in conjunction with the public offerings completed by Titan in 2016.

#### PROMOTER

No person is or has been within the two years immediately preceding the date hereof, a promoter of the Company.

#### LEGAL PROCEEDINGS AND REGULATORY ACTIONS

There are no legal proceedings to which the Company is or was a party to, or that any of its property is or was the subject of, during the year ended December 31, 2016, and the Company is not aware of any such proceedings that are contemplated. No penalties or sanctions were imposed against the Company by a court relating to securities legislation or by a securities regulatory authority during the year ended December 31, 2016, nor has the Company entered into a settlement agreement with a securities regulatory authority, or been subject to any other penalties or sanctions imposed by a court or regulatory body that would likely be considered important to a reasonable investor in making an investment decision.

## INTEREST OF MANAGEMENT AND OTHERS IN MATERIAL TRANSACTIONS

Except as disclosed in this Annual Information Form, none of the directors or executive officers of the Company, or any person or company that beneficially owns, or controls or directs, directly or indirectly, more than 10% of any class or series of the Company's outstanding voting securities, or any associate or affiliate of any of the foregoing persons or companies, has or has had any material interest, direct or indirect, in any transaction within the three most recently completed financial years or during the current financial year that has materially affected or is reasonably expected to materially affect the Company.

# - 35 -

## TRANSFER AGENT AND REGISTRAR

Computershare Limited is the Company's registrar and transfer agent. The register of the transfers of the Common Shares of the Company are located at 8<sup>th</sup> Floor, 100 University Avenue, Toronto, Ontario M5J 2Y1.

# MATERIAL CONTRACTS

The Company enters into a variety of contracts in the normal course of business. Material contracts entered into since January 1, 2016, or before January 1, 2016, but still in effect and that are or were required to be filed under Section 12.2 of National Instrument 51-102 *Continuous Disclosure Obligations* include the Warrant Indentures described under "*Capital Structure*".

#### EXPERTS

The auditors of the Company are BDO Canada LLP, Charted Accountants, Licensed Public Accountants, who have prepared an independent auditors' report in respect of the Company's financial statements with accompanying notes as at and for the year ended December 31, 2016. BDO Canada LLP is independent in accordance with the Rules of Professional Conduct as outlined by the Institute of Chartered Professional Accountants of Ontario.

# ADDITIONAL INFORMATION

Additional information regarding the Company's corporate governance practices, including the terms of reference for the Company's board of directors and the Company's board committees, is contained in the management information circular of the Company dated May 27, 2016. This document can be found on SEDAR at www.sedar.com.

Additional information relating to the Company may be found on SEDAR at www.sedar.com and on the Company's web site at www.titanmedicalinc.com.

Upon request to the Company's registered office at 170 University Avenue, Suite 1000, Toronto, Ontario M5H 3B3, the Company will provide any person with a copy of this annual information form and any other documents that are incorporated by reference into a preliminary short form prospectus or short form prospectus filed in respect of a distribution of securities of the Company.

#### A copy of any of these documents may be obtained without charge at any time when a preliminary short form prospectus has been filed in respect of a distribution of any securities of the Company or any securities of the Company are in the course of a distribution pursuant to a short form prospectus. At any other time, any document referred to above may be obtained by security holders of the Company without charge and by any other person upon payment of a reasonable charge.

Additional information including directors' and executive officers' remuneration and indebtedness, principal holders of the Company's securities and options to purchase securities, where applicable, is contained in the management information circular of the Company dated May 27, 2016. Additional financial information is provided in the Company's financial statements and management's discussion and analysis for the year ended December 31, 2016.

# - 36 -

#### SCHEDULE "A"

### TITAN MEDICAL INC.

## AUDIT COMMITTEE CHARTER

#### Purpose

The Audit Committee (the "Audit Committee") or the "Committee") is a committee of the board of directors (the "Board of Directors" or the "Board") of Titan Medical Inc. (the "Company"). Its primary function is to assist the Board in fulfilling its oversight responsibilities by evaluating and making recommendations to the Board as appropriate with respect to:

- financial reporting;
- the external auditors, including performance, qualifications, independence, and their audit of the Company's financial statements;
- internal controls and disclosure controls;
- financial risk management;
- the Company's Code of Business Conduct and Ethics (the "Code"); and
- related party transactions.

The Audit Committee will also have authority to review and, in its discretion, approve certain matters, in accordance with and within the limitations prescribed by this Charter.

The Audit Committee's primary function is to assist the Board of Directors in fulfilling its responsibilities. It is, however, the Company's management which is responsible for preparing the Company's financial statements and it is the Company's external auditors who are responsible for auditing those financial statements.

## **Composition and Member Qualification**

The Committee shall, subject to applicable exemptions available under National Instrument 52-110 - Audit Committees ("NI 52-110"), be comprised of at least three directors, each of whom shall be an independent director of the Company (as defined below). Pursuant to NI 52-110 (as implemented by the Canadian Securities Administrators and as amended from time to time), a director is considered to be "independent" if he or she has no direct or indirect "material relationship" with the Company which is a relationship that could, in the view of the Board of Directors, be reasonably expected to interfere with the exercise of a director's independent judgment. Notwithstanding the foregoing, a director shall be considered to have a "material relationship" with the Company if he or she falls in one of the categories listed in Schedule A attached hereto.

Subject to an applicable exemption available under NI 52-110, all members of the Audit Committee must, to the satisfaction of the Board of Directors, be "financially literate" within the meaning of NI 52-110. NI 52-110 provides that a director will be considered "financially literate" if he or she has the ability to read and understand a set of financial statements that present a breadth and level of complexity of accounting issues that are generally comparable to the breadth and complexity of the issues that can reasonably be expected to be raised by the Company's financial statements.

Each member will have, to the satisfaction of the Board, sufficient skills and/or experience as are relevant and will be of contribution to the carrying out of the mandate of the Committee.



## Appointment and Term of Office

Each member of the Committee and the Chair of the Committee shall be appointed from and by the Board of Directors, on the recommendation of the Corporate Governance and Nominating Committee, at the time of each annual meeting of the shareholders of the Company, and shall hold office until the next annual meeting.

Any member of the Committee may be removed or replaced at any time by the Board and shall cease to be a member of the Committee upon ceasing to be a director.

The Board may fill vacancies on the Committee by appointment from among its members. If and whenever a vacancy shall exist on the Committee, the remaining members may exercise all their powers so long as a quorum remains in office.

#### Meetings

The Committee is to meet at least four times annually (and more frequently if circumstances require). The Audit Committee is to meet prior to filing the quarterly financial statements in order to review and discuss the unaudited financial results for the preceding quarter and the related management's discussion and analysis ("**MD&A**") and is to meet prior to filing the annual audited financial statements and MD&A in order to review and discuss the audited financial statements discuss the audited financial statements and MD&A.

The Audit Committee will meet periodically with management and the external auditors in separate sessions to discuss any matters that the Audit Committee or each of these groups believe should be discussed privately. The Audit Committee shall meet with the external auditors in a separate session at each regularly scheduled meeting of the Committee at which such auditors are present.

A quorum for the transaction of business at any meeting of the Committee is the presence in person or via tele-conference or video-conference of a simple majority of the total number of members of the Committee. If within one hour of the time appointed for a meeting of the Committee, a quorum is not present, the meeting shall stand adjourned to the same hour on the second business day following the date of such meeting at the same place. If at the adjourned meeting a quorum as hereinbefore specified is not present within one hour of the time appointed for such adjourned meeting, the quorum for the adjourned meeting will consist of the members then present.

Meetings of the Committee shall be held from time to time and at such place as the Committee or the Chair of the Committee may determine, within or outside Canada, upon not less than 48 hours' prior notice to each of the members.

Meetings of the Committee may be held without 48 hours' prior notice if all of the members entitled to vote at such meeting who do not attend, waive notice of the meeting and, for the purpose of such meeting, the presence of a member at such meeting shall constitute waiver on his or her part. Any member of the Committee or the Chairman of the Board shall be entitled to request that the Chair of the Committee call a meeting. A notice of a meeting of the Committee may be given verbally, in writing or by telephone, fax or other means of communication, and need not specify the purpose of the meeting. Members of the Committee may attend meetings of the Committee by teleconference or video-conference.

The Committee shall keep minutes of its meetings which shall be submitted to the Board of Directors. The Committee may, from time to time, appoint any person who need not be a member, to act as secretary at any meeting.

All decisions of the Committee will require the vote of a majority of its members present at a meeting at which a quorum is present. Actions of the Committee may be taken by an instrument or instruments in writing signed by all of the members of the Committee, and such actions shall be effective as though they had been decided by a majority of votes cast at a meeting of the Committee called for such purpose. Such instruments in writing may be signed in counterparts each of which shall be deemed to be an original and all originals together shall be deemed to be one and the same instrument.



The Committee shall meet in camera, without management, at each meeting of the Committee, and otherwise as considered appropriate by the members of the Committee. Any member of the Committee may move the Committee in camera at any time during the course of a meeting, and a record of any decisions made in camera shall be maintained by the Chair of the Committee.

## **Duties and Responsibilities**

To fulfill its duties and responsibilities, the Audit Committee shall evaluate and make recommendations to the Board, or approve, as appropriate, with respect to the following matters:

- 1. General Responsibilities
  - a. Create and maintain a Committee plan for the year.
  - b. Review and assess this Charter at least annually, prepare revisions to its provisions as conditions dictate, and refer its assessment and any proposed revisions to the Corporate Governance and Nominating Committee or the Board.
  - c. Report and make recommendations periodically to the Board on the matters covered by this Charter.
  - d. Perform any other activities consistent with this Charter, the Company's Articles and By-Laws and governing law, as the Audit Committee or the Board of Directors deems necessary or appropriate.

#### 2. Financial Reporting

- a. Recommend to the Board for approval:
  - i. the Company's quarterly and annual financial statements and related MD&A;
  - ii. all other financial statements that require approval by the Board, including financial statements for use in prospectuses or other offering or public disclosure documents and financial statements required by regulatory authorities; and
  - iii. financial information for use in press releases, including annual and interim profit or loss press releases, prior to their publication and/or filing with any governmental body and/or release.
- b. Overseeing the work of the external auditor engaged for the purpose of preparing or issuing an auditor's report or performing other audit, review or attest services for the Company, including the resolution of disagreements between management and the external auditor regarding financial reporting.
- c. Before the release of financial statements and related disclosures to the public, obtain confirmation from the CEO and CFO as to the matters addressed in the certifications required by the securities regulatory authorities.
- d. Review any litigation, claim or other contingency that could have a material effect on the financial statements.
- e. Review the external auditors' judgments about the quality and appropriateness, not just the acceptability, of the Company's accounting principles and financial disclosure practices, as applied in its financial reporting.



- f. Review the status of significant accounting estimates and judgments and special issues (e.g., major transactions, changes in the selection or application of accounting policies, off-balance sheet items, effect of regulatory and financial initiatives).
- g. Review and approve, if appropriate, major changes to the Company's accounting principles and practices as suggested by management with the concurrence of the external auditors.
- 3. External Auditor
  - a. Recommend to the Board of Directors: (i) the selection of the external auditors, considering independence and effectiveness; and (ii) the fees and other compensation to be paid to the external auditors.
  - b. Require, in accordance with applicable law that the external auditors report directly to the Audit Committee.
  - c. Pre-approve all audit and non-audit services to be provided to the Company or its subsidiaries by the external auditors in a manner consistent with NI 52-110.
  - d. Oversee the work and review the performance of the external auditors and approve any proposed discharge of the external auditors when circumstances warrant.
  - e. Monitor the relationship between management and the external auditors, including reviewing any management letters or other reports of the external auditors.
  - f. Discuss with the external auditor any (i) difference of opinion with management on material auditing or accounting issues, and (ii) any audit problems or difficulties experienced by the external audit in performing the audit. Where there are significant unsettled issues, the Audit Committee is to assist in arriving at an agreed course of action for the resolution of such matters.
  - g. Periodically consult with the external auditors without management present about significant risks or exposures, internal controls and other steps that management has taken to control such risks, and the completeness and accuracy of the Company's financial statements. Particular emphasis should be given to the adequacy of internal controls to expose any payments, transactions, or procedures that might be deemed illegal or otherwise improper.
  - h. Review and discuss, on an annual basis, with the external auditors all significant relationships they have with the Company to determine their independence.
  - i. Review and approve the Company's hiring policies regarding partners, employees and former partners and employees of the Company's external auditors.
  - j. Consider any matter required to be communicated to the Audit Committee by the external auditors under applicable generally accepted auditing standards, applicable law and listing standards, including the auditor's report to the Audit Committee (and management's response thereto).
- 4. Monitoring Financial Matters, Internal Controls, Management Systems and Disclosure Controls
  - a. Oversee management's review of the adequacy of the Company's accounting and financial reporting systems, including with respect to the integrity and quality of the Company's financial statements and other financial information.
  - b. Oversee management's review of the adequacy of the Company's internal controls and management systems to safeguard assets from loss and unauthorized use and to verify the accuracy of the financial records.

- 4 -

- c. In consultation with the Corporate Governance and Nominating Committee, oversee management's disclosure controls and procedures regarding the Company's financial information to confirm that the Company's financial information that is required to be disclosed under applicable law or stock exchange rules is disclosed.
- d. Review any special audit steps adopted in light of material control deficiencies.
- 5. Risk Management
  - a. Review management's assessment and management of financial risk, including insurance coverage, and obtain the external auditors' opinion of management's assessment of significant financial risks facing the Company and how effectively such risks are being managed or controlled.
- 6. Code of Business Conduct and Ethics
  - a. Recommend to the Board any significant changes to the Code, monitor compliance with the Code and ensure that management has established a system to enforce the Code. Review appropriateness of actions taken to ensure compliance with the Code and review the results of confirmations and violations thereof.
  - b. Oversee procedures in the Code for (i) the receipt, retention and treatment of complaints received by the Company regarding accounting, internal controls or auditing matters, and (ii) the confidential, anonymous submission by employees of concerns regarding questionable accounting or auditing matters.
  - c. Approve any waiver from compliance with the Code for directors and executive officers, promptly report any such waiver to the Board, and ensure appropriate disclosure of any such waiver.

Each of which shall be conducted with the Corporate Governance and Nominating Committee.

- 7. Related Party Transactions
  - a. Review and pre-approve all proposed related party transactions and situations involving a potential or actual conflict of interest involving a director, member of executive management, or affiliate, that are not required to be dealt with by an "independent committee" pursuant to securities laws, other than routine transactions and situations arising in the ordinary course of business, consistent with past practice.
- 8. Financial Legal Compliance
  - a. Review management's monitoring of the Company's systems in place to ensure that the Company's financial statements, reports and other financial information disseminated to governmental organizations and the public satisfy legal requirements.
  - b. Review with legal counsel any legal matters that could have a significant effect on the Company's financial statements.
  - c. Review with legal counsel the Company's compliance with applicable law and inquiries received from regulators and governmental agencies to the extent they may have a material impact on the financial position of the Company.

- 9. Expense Accounts and Management Perquisites
  - a. Recommend to the Board policies and procedures with respect to directors' and executive management's expense accounts and management perquisites and benefits, including their use of corporate assets and expenditures related to executive travel and entertainment, and review the results of the procedures performed in these areas by the external auditors.
- 10. Succession Planning
  - a. Consult with the Compensation Committee and Corporate Governance and Nominating Committee on succession planning for the directors and executive management.
- 11. Disclosure of Audit Committee Function
  - a. Oversee the preparation of, and recommend to the Board, the disclosure of the Audit Committee's composition and responsibilities and how they were discharged as required to be published annually in the Company's management information circular or annual information form pursuant to applicable law (including NI 52-110).
  - b. Approve any other significant information relating to matters within this Charter contained in the

Company's disclosure documents.

- 12. Legal Compliance
  - a. Oversee management's compliance with laws with respect to the audit function, and recommend to the Board any changes to the Company's practices in these areas.
  - b. Satisfy itself that management monitors significant trends in the area of financial reporting, and evaluates their impact on the Company.

The foregoing list is not exhaustive. The Audit Committee may, in addition, perform such other functions as may be necessary or appropriate for the performance of its responsibilities and duties.

# **Responsibilities of Committee Chair**

The primary responsibility of the Chair of the Audit Committee is to be responsible for the management and effective performance of the Committee and provide leadership to the Committee in fulfilling this Charter and any other matters delegated to it by the Board. To that end, the Committee Chair's duties and responsibilities shall include:

- a. Working with the Board Chair, the Chief Executive Officer and the Corporate Secretary to establish the frequency of Committee meetings and the agendas for such meetings.
- b. Providing leadership to the Committee and presiding over Committee meetings.
- c. Facilitating the flow of information to and from the Committee and fostering an environment in which the Committee members may ask questions and express their viewpoints.
- d. Reporting to the Board with respect to the significant activities of the Committee and any recommendations made by the Committee.
- e. Taking such other steps as are reasonably required to ensure that the Committee carries out this Charter.

#### **Other Organizational Matters**

- 13. The members and the Chair of the Committee shall be entitled to receive remuneration for acting in such capacity as the Board may from time to time determine.
  - a. The Committee shall have the resources and authority appropriate to discharge its duties and responsibilities, including the authority to:
    - i. engage, select, retain, terminate, set and approve the fees and other compensation and other retention terms of special or independent counsel, accountants or other advisors, as it deems appropriate;
    - ii. obtain appropriate funding to pay, or approve the payment of, such approved fees; at the expense of the Company; and
    - iii. communicate directly with the internal and external auditors.
- 14. The Committee shall have full access to books, records, facilities, and personnel of the Company, as it deems necessary to carry out its duties.
- 15. The Committee's performance shall be evaluated annually, in accordance with a process developed by the

Corporate Governance and Nominating Committee and approved by the Board, and results of that evaluation shall be reported to the Corporate Governance and Nominating Committee and to the Board.



### Schedule A

#### to Audit Committee Charter

#### Material Relationship

#### Material Relationships

I

- 1. An audit committee member is independent if he or she has no direct or indirect material relationship with the issuer.
- 2. For the purposes of subsection (1), a "material relationship" is a relationship which could, in the view of the issuer's board of directors, be reasonably expected to interfere with the exercise of a member's independent judgement.
- 3. Despite subsection (2), the following individuals are considered to have a material relationship with an issuer:
  - a. an individual who is, or has been within the last three years, an employee or executive officer of the issuer;
  - b. an individual whose immediate family member is, or has been within the last three years, an executive officer of the issuer;
  - c. an individual who:
    - (i) is a partner of a firm that is the issuer's internal or external auditor,
    - (ii) is an employee of that firm, or
    - (iii) was within the last three years a partner or employee of that firm and personally worked on the issuer's audit within that time;
  - d. an individual whose spouse, minor child or stepchild, or child or stepchild who shares a home with the individual:
    - (i) is a partner of a firm that is the issuer's internal or external auditor,
    - (ii) is an employee of that firm and participates in its audit, assurance or tax compliance (but not tax planning) practice, or
    - (iii) was within the last three years a partner or employee of that firm and personally worked on the issuer's audit within that time;
  - e. an individual who, or whose immediate family member, is or has been within the last three years, an executive officer of an entity if any of the issuer's current executive officers serves or served at that same time on the entity's compensation committee; and
  - f. an individual who received, or whose immediate family member who is employed as an executive officer of the issuer received, more than \$75,000 in direct compensation from the issuer during any 12 month period within the last three years.

- 8 -

- 4. Despite subsection (3), an individual will not be considered to have a material relationship with the issuer solely because
  - a. he or she had a relationship identified in subsection (3) if that relationship ended before March 30, 2004; or
  - b. he or she had a relationship identified in subsection (3) by virtue of subsection (8) if that relationship ended before June 30, 2005.
- 5. For the purposes of clauses (3)(c) and (3)(d), a partner does not include a fixed income partner whose interest in the firm that is the internal or external auditor is limited to the receipt of fixed amounts of compensation (including deferred compensation) for prior service with that firm if the compensation is not contingent in any way on continued service.
- 6. For the purposes of clause (3)(f), direct compensation does not include:
  - a. remuneration for acting as a member of the board of directors or of any board committee of the issuer, and
  - b. the receipt of fixed amounts of compensation under a retirement plan (including deferred compensation) for prior service with the issuer if the compensation is not contingent in any way on continued service.
- 7. Despite subsection (3), an individual will not be considered to have a material relationship with the issuer solely because the individual or his or her immediate family member
  - a. has previously acted as an interim chief executive officer of the issuer, or
  - b. acts, or has previously acted, as a chair or vice-chair of the board of directors or of any board committee of the issuer on a part-time basis.
- 8. For the purpose of this section I, an issuer includes a subsidiary entity of the issuer and a parent of

### II Additional Independence Requirements

- 1. Despite any determination made under section I, an individual who
  - a. accepts, directly or indirectly, any consulting, advisory or other compensatory fee from the issuer or any subsidiary entity of the issuer, other than as remuneration for acting in his or her capacity as a member of the board of directors or any board committee, or as a part-time chair or vice-chair of the board or any board committee; or
  - b. is an affiliated entity of the issuer or any of its subsidiary entities, is considered to have a material relationship with the issuer.
- 2. For the purposes of subsection (1), the indirect acceptance by an individual of any consulting, advisory or other compensatory fee includes acceptance of a fee by
  - a. an individual's spouse, minor child or stepchild, or a child or stepchild who shares the individual's home; or
  - b. an entity in which such individual is a partner, member, an officer such as a managing director occupying a comparable position or executive officer, or occupies a similar position (except limited partners, non-managing members and those occupying similar positions who, in each case, have no active role in providing services to the entity) and which provides accounting, consulting, legal, investment banking or financial advisory services to the issuer or any subsidiary entity of the issuer.

3. For the purposes of subsection (1), compensatory fees do not include the receipt of fixed amounts of compensation under a retirement plan (including deferred compensation) for prior service with the issuer if the compensation is not contingent in any way on continued service.

# Effective: February 10, 2015

#### FORM 52-109F1 CERTIFICATION OF ANNUAL FILINGS FULL CERTIFICATE

# I, David McNally, President and Chief Executive Officer, Titan Medical Inc., certify the following:

1. *Review:* I have reviewed the AIF, if any, annual financial statements and annual MD&A, including, for greater certainty, all documents and information that are incorporated by reference in the AIF (together, the "annual filings") of **Titan Medical Inc.** (the "issuer") for the financial year ended **December 31, 2016**.

2. No misrepresentations: Based on my knowledge, having exercised reasonable diligence, the annual filings do not contain any untrue statement of a material fact or omit to state a material fact required to be stated or that is necessary to make a statement not misleading in light of the circumstances under which it was made, for the period covered by the annual filings.

3. *Fair presentation:* Based on my knowledge, having exercised reasonable diligence, the annual financial statements together with the other financial information included in the annual filings fairly present in all material respects the financial condition, results of operations and cash flows of the issuer, as of the date of and for the periods presented in the annual filings.

4. *Responsibility:* The issuer's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (DC&P) and internal control over financial reporting (ICFR), as those terms are defined in National Instrument 52-109 *Certification of Disclosure in Issuers' Annual and Interim Filings*, for the issuer.

5. Design: Subject to the limitations, if any, described in paragraphs 5.2 and 5.3, the issuer's other certifying officer(s) and I have, as at the financial year end

- (a) designed DC&P, or caused it to be designed under our supervision, to provide reasonable assurance that
  - (i) material information relating to the issuer is made known to us by others, particularly during the period in which the annual filings are being prepared; and

(ii) information required to be disclosed by the issuer in its annual filings, interim filings or other reports filed or submitted by it under securities legislation is recorded, processed, summarized and reported within the time periods specified in securities legislation; and

(b) designed ICFR, or caused it to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with the issuer's GAAP.

5.1 Control framework: The control framework the issuer's other certifying officer(s) and I used to design the issuer's ICFR is Integrated Framework (COSO).

#### 5.2 ICFR – material weakness relating to design: N/A

(a) a description of the material weakness;

#### 5.3 Limitation on scope of design: N/A

6. Evaluation: The issuer's other certifying officer(s) and I have

(a) evaluated, or caused to be evaluated under our supervision, the effectiveness of the issuer's DC&P at the financial year end and the issuer has disclosed in its annual MD&A our conclusions about the effectiveness of DC&P at the financial year end based on that evaluation; and

(b) evaluated, or caused to be evaluated under our supervision, the effectiveness of the issuer's ICFR at the financial year end and the issuer has disclosed in its annual MD&A

- (i) our conclusions about the effectiveness of ICFR at the financial year end based on that evaluation; and
- (ii) for each material weakness relating to operation existing at the financial year end
  - (A) a description of the material weakness; N/A
  - (B) the impact of the material weakness on the issuer's financial reporting and its ICFR;N / A and
  - (C) the issuer's current plans, if any, or any actions already undertaken, for remediating the material weakness.N/A

7. *Reporting changes in ICFR*: The issuer has disclosed in its annual MD&A any change in the issuer's ICFR that occurred during the period beginning on January 1, 2016 and ended December 31, 2016 that has materially affected, or is reasonably likely to materially affect, the issuer's ICFR.

8. *Reporting to the issuer's auditors and board of directors or audit committee:* The issuer's other certifying officer(s) and I have disclosed, based on our most recent evaluation of ICFR, to the issuer's auditors, and the board of directors or the audit committee of the board of directors any fraud that involves management or other employees who have a significant role in the issuer's ICFR.

Date: March 31, 2017

(SIGNED) "David McNally" President and Chief Executive Officer

#### FORM 52-109F1 CERTIFICATION OF ANNUAL FILINGS FULL CERTIFICATE

I, Stephen Randall, Chief Financial Officer, Titan Medical Inc., certify the following:

1. *Review:* I have reviewed the AIF, if any, annual financial statements and annual MD&A, including, for greater certainty, all documents and information that are incorporated by reference in the AIF (together, the "annual filings") of **Titan Medical Inc.** (the "issuer") for the financial year ended **December 31, 2016**.

2. No misrepresentations: Based on my knowledge, having exercised reasonable diligence, the annual filings do not contain any untrue statement of a material fact or omit to state a material fact required to be stated or that is necessary to make a statement not misleading in light of the circumstances under which it was made, for the period covered by the annual filings.

3. *Fair presentation:* Based on my knowledge, having exercised reasonable diligence, the annual financial statements together with the other financial information included in the annual filings fairly present in all material respects the financial condition, results of operations and cash flows of the issuer, as of the date of and for the periods presented in the annual filings.

4. *Responsibility:* The issuer's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (DC&P) and internal control over financial reporting (ICFR), as those terms are defined in National Instrument 52-109 *Certification of Disclosure in Issuers' Annual and Interim Filings*, for the issuer.

5. Design: Subject to the limitations, if any, described in paragraphs 5.2 and 5.3, the issuer's other certifying officer(s) and I have, as at the financial year end

(a) designed DC&P, or caused it to be designed under our supervision, to provide reasonable assurance that

(i) material information relating to the issuer is made known to us by others, particularly during the period in which the annual filings are being prepared; and

(ii) information required to be disclosed by the issuer in its annual filings, interim filings or other reports filed or submitted by it under securities legislation is recorded, processed, summarized and reported within the time periods specified in securities legislation; and

(b) designed ICFR, or caused it to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with the issuer's GAAP.

5.1 Control framework: The control framework the issuer's other certifying officer(s) and I used to design the issuer's ICFR is Integrated Framework (COSO).

### 5.2 ICFR – material weakness relating to design: N/A

5.3 Limitation on scope of design: N/A

6. Evaluation: The issuer's other certifying officer(s) and I have

(a) evaluated, or caused to be evaluated under our supervision, the effectiveness of the issuer's DC&P at the financial year end and the issuer has disclosed in its annual MD&A our conclusions about the effectiveness of DC&P at the financial year end based on that evaluation; and

(b) evaluated, or caused to be evaluated under our supervision, the effectiveness of the issuer's ICFR at the financial year end and the issuer has disclosed in its annual MD&A

- (i) our conclusions about the effectiveness of ICFR at the financial year end based on that evaluation; and
- (ii) for each material weakness relating to operation existing at the financial year end
  - (A) a description of the material weakness; N/A
  - (B) the impact of the material weakness on the issuer's financial reporting and its ICFR;N / A and
  - (C) the issuer's current plans, if any, or any actions already undertaken, for remediating the material weakness N/A

7. *Reporting changes in ICFR:* The issuer has disclosed in its annual MD&A any change in the issuer's ICFR that occurred during the period beginning on **January 1, 2016** and ended December 31, 2016 that has materially affected, or is reasonably likely to materially affect, the issuer's ICFR.

8. *Reporting to the issuer's auditors and board of directors or audit committee:* The issuer's other certifying officer(s) and I have disclosed, based on our most recent evaluation of ICFR, to the issuer's auditors, and the board of directors or the audit committee of the board of directors any fraud that involves management or other employees who have a significant role in the issuer's ICFR.

Date: March 31, 2017

(SIGNED) "Stephen Randall" Chief Financial Officer



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## TITAN MEDICAL APPOINTS CURTIS R. JENSEN VICE PRESIDENT OF QUALITY AND REGULATORY AFFAIRS

TORONTO (April 3, 2017) – Titan Medical Inc. (TSX: TMD) (OTCQX: TITXF), a medical device company focused on the design, development and commercialization of a robotic surgical system for application in minimally invasive surgery (MIS), announces the appointment of Curtis R. Jensen as Vice President of Quality and Regulatory Affairs, effective immediately. Mr. Jensen will be responsible for regulatory affairs of the Company's SPORT Surgical System, which is currently under development. He reports to David J. McNally, Titan Medical's Chief Executive Officer.

"Curtis is an important and welcome addition to our organization and we are delighted to bring him on board," commented Mr. McNally. "I have worked with Curtis previously and can attest to his knowledge and leadership, along with his thorough understanding of what Titan will require as we interact with development, manufacturing and regulatory authorities. His experience with the FDA, Health Canada and various European regulatory bodies will be extremely important as we develop and ultimately commercialize SPORT."

"I'm excited to be joining Titan Medical as I believe SPORT will be an important option for clinicians performing robotic surgeries in procedures that may not be optimally performed with the systems currently available," commented Mr. Jensen. "I appreciate the opportunity to support Titan's quality and regulatory functions as SPORT moves along the development pathway. I am eager to contribute to the company and provide guidance with implementing sustainable quality and compliance programs that will further strengthen core business objectives."

Mr. Jensen has more than 20 years of experience leading successful quality and regulatory affairs teams at several U.S. companies. Prior to joining Titan, he served since 2015 as senior regulatory affairs associate at EKOS, a privately-held medical equipment manufacturer where he was responsible for worldwide regulatory approval for a new CU 4.0 Control System for an ultrasound pulmonary embolism catheter. Prior to EKOS, from 2010 to 2015 he held positions of increasing responsibility at Domain Surgical, a manufacturer of advanced thermal surgical instruments, including serving as Vice President of Quality and Regulatory Affairs. At Domain Surgical he successfully submitted five 510(k) applications to the U.S. Food and Drug Administration for dissection and vessel sealing devices, and achieved CE Mark approvals. Prior to Domain, Mr. Jensen held quality and regulatory positions at Ceramatec, GE Healthcare, Iomed, Bausch & Lomb and Bard Access Systems, among others.

Mr. Jensen holds a Master of Science degree in Applied Mathematics from Johns Hopkins University and a Bachelor of Science degree in Electrical Engineering from Utah State University.

# About Titan Medical Inc.

Titan Medical Inc. is focused on the design and development through the planned commercialization of a robotic surgical system for use in MIS. The Company's SPORT Surgical System, currently under development, includes a surgeon-controlled robotic platform that features multi-articulating instruments for performing MIS procedures through a single incision. The surgical system also includes a workstation that provides a surgeon with an advanced ergonomic interface to the robotic platform for controlling the instruments and provides a 3D high-definition endoscopic view inside a patient's body. The SPORT Surgical System is designed to enable surgeons to perform a broad set of general abdominal, gynecologic and urologic procedures. For more information, visit the Company's website at <a href="https://www.titanmedicalinc.com">www.titanmedicalinc.com</a>.

## Forward-Looking Statements

This news release contains "forward-looking statements" which reflect the current expectations of management of the Company's future growth, results of operations, performance and business prospects and opportunities. Wherever possible, words such as "may", "would", "could", "will", "anticipate", "believe", "plan", "expect", "intend", "estimate", "potential for" and similar expressions have been used to identify these forward-looking statements. These statements reflect management's current beliefs with respect to future events and are based on information currently available to management. Forward-looking statements involve significant risks, uncertainties and assumptions. Many factors could cause the Company's actual results, performance or achievements to be materially different from any future results, performance or achievements, including, without limitation, those listed in the "Risk Factors" section of the Company's Annual Information Form dated March 31, 2017 (which may be viewed at www.sedar.com). Should one or more of these risks or uncertainties materialize, or should assumptions underlying the forward-looking statements prove incorrect, actual results, performance or achievements may vary materially from those expressed or implied by the forward-looking statements contained in this news release. These factors should be considered carefully, and prospective investors should not place undue reliance on the forward-looking statements. Although the forward-looking statements contained in the news release are based upon what management currently believes to be reasonable assumptions, the Company cannot assure prospective investors that actual results, performance or achievements will be consistent with these forward-looking statements.

# CONTACTS:

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## TITAN MEDICAL TO PRESENT AT BLOOM BURTON & CO. HEALTHCARE INVESTOR CONFERENCE 2017

**TORONTO (April 24, 2017)** – Titan Medical Inc. (TSX: TMD) (OTCQX: TITXF), a medical device company focused on the design, development and commercialization of a robotic surgical system for application in minimally invasive surgery (MIS), today announced that David McNally, President and CEO of Titan Medical, will present at Bloom Burton & Co. Healthcare Investor Conference on Monday, May 1 at 10:30 a.m. Eastern time. Mr. McNally will provide a corporate overview discussing the Company's SPORT Surgical System, currently under development. The conference is taking place at the Sheraton Centre Toronto Hotel in Toronto, Canada on May 1<sup>st</sup> and 2<sup>nd</sup>.

To access the live webcast of the presentation, please <u>click here</u>. A replay will be available following the presentation. For more information about the conference, please visit <u>Bloom Burton & Co.</u>

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## TITAN MEDICAL ISSUED U.S. PATENT RELATED TO SPORT SURGICAL SYSTEM ROBOTIC INSTRUMENTS

**TORONTO** (April 26, 2017) – Titan Medical Inc. (TSX: TMD) (OTCQX: TITXF), a medical device company focused on the design, development and commercialization of a robotic surgical system for application in minimally invasive surgery (MIS), announces the issuance of U.S. Patent No. 9,629,688 titled "Actuator and Drive for Manipulating a Tool," which covers the Company's unique robotic surgical instruments and in particular the novel interface and drive mechanism.

The patent generally describes a tool apparatus that includes actuators mounted in a housing in such a way to facilitate travel in a substantially orthogonal direction to the actuating direction of control links, which drive movement of the tool apparatus.

"This issuance of this patent is extremely important to Titan Medical and our development of the SPORT single port robotic surgery system, as it protects our system from would-be competitors and distinguishes our system from existing robotic technologies," said David McNally, the company's Chief Executive Officer. "In addition to the novelty of the instrument design, this patent covers key characteristics we believe will be beneficial for commercial adoption. For example, the technology was developed to provide ease of instrument loading, and it facilitates close instrument proximity when loaded in a surgical system. This is especially important for minimizing the insertion mechanism diameter and ultimately, the incision size in single-port surgery. In addition, the interface design allows for reduced tension on the instrument cables, which potentially extends the life of the reusable device."

The Company expects to file select foreign patent applications related to the issued patent, in addition to a related U.S. continuation application that has previously been filed.

## About Titan Medical Inc.

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## TITAN MEDICAL ENDS NEGOTIATIONS WITH LONGTAI MEDICAL FOR SPORT DISTRIBUTION IN ASIA PACIFIC

**TORONTO (April 28, 2017)** – Titan Medical Inc. (TSX: TMD) (OTCQX: TITXF) (Titan), a medical device company focused on the design, development and commercialization of a robotic surgical system for application in minimally invasive surgery (MIS), announces it has terminated its negotiations with Longtai Medical, Inc. (Longtai), a Canadian subsidiary of Ningbo Long Hengtai International Trade Co. Ltd., for distribution of the SPORT single port surgical system in the Asia Pacific region. Titan has determined to focus on execution for initial commercialization in the United States and the European Union, and will return a \$2 million deposit to Longtai.

David McNally, Chief Executive Officer of Titan Medical, said, "We are focused on our largest target markets in the United States and Europe. It is worth noting that lengthy discussions with Longtai began in October 2015 and included a good faith \$2 million deposit and two term extensions, but with initial priority the United States and Europe, other partnering opportunities and our commitment to focus the contemplated distribution agreement is not in the best interests of Titan. We part ways with Longtai amicably and look forward to reporting on additional milestone progress in the near-term."

### About Titan Medical Inc.

Titan Medical Inc. is focused on the design and development through the planned commercialization of a robotic surgical system for use in MIS. The Company's SPORT Surgical System, currently under development, includes a surgeon-controlled robotic platform that features multi-articulating instruments for performing MIS procedures through a single incision. The surgical system also includes a workstation that provides a surgeon with an advanced ergonomic interface to the robotic platform for controlling the instruments and provides a 3D high-definition endoscopic view inside a patient's body. The SPORT Surgical System is designed to enable surgeons to perform a broad set of general abdominal, gynecologic and urologic procedures. For more information, visit the Company's website at <a href="https://www.titanmedicalinc.com">www.titanmedicalinc.com</a>.

#### **Forward-Looking Statements**

This news release contains "forward-looking statements" which reflect the current expectations of management of the Company's future growth, results of operations, performance and business prospects and opportunities. Wherever possible, words such as "may", "would", "could", "will", "anticipate", "believe", "plan", "expect", "intend", "estimate", "potential for" and similar expressions have been used to identify these forward-looking statements. These statements reflect management's current beliefs with respect to future events and are based on information currently available to management. Forward-looking statements involve significant risks, uncertainties and assumptions. Many factors could cause the Company's actual results, performance or achievements to be materially different from any future results, performance or achievements that may be expressed or implied by such forward-looking statements, including, without limitation, those listed in the "Risk Factors" section of the Company's Annual Information Form dated March 31, 2017 (which may be viewed at www.sedar.com). Should one or more of these risks or uncertainties materialize, or should assumptions underlying the forward-looking statements prove incorrect, actual results, performance or achievements may vary materially from those expressed or implied by the forward-looking statements. Although the forward-looking statements contained in this news release. These factors should be considered carefully, and prospective investors should not place undue reliance on the forward-looking statements. Although the forward-looking statements contained in the news release are based upon what management currently believes to be reasonable assumptions, the Company cannot assure prospective investors that actual results, performance or achievements will be consistent with these forward-looking statements.

# CONTACTS:

LHA Kim Sutton Golodetz (212) 838-3777 kgolodetz@lhai.com or Bruce Voss (310) 691-7100 bvoss@lhai.com



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#### Titan Medical Reports First Quarter 2017 Financial Results

**TORONTO (May 11, 2017)** – Titan Medical Inc. (TSX: TMD) (OTCQB: TITXF), a medical device company focused on the design and development of a robotic surgical system for application in minimally invasive surgery (MIS), announces financial results for the three months ended March 31, 2017.

All financial results are reported in U.S. dollars, unless otherwise stated. The unaudited condensed interim financial statements and management's discussion and analysis for the period ended March 31, 2017 may be viewed on SEDAR at www.sedar.com.

David McNally, President and CEO of Titan Medical, said, "The first quarter of 2017, which was my first quarter at Titan, was exciting and productive. We added to our team experienced executive talent with a track record of success in the recruitment of Dr. Perry Genova as Vice President of Research and Development, and Curtis Jensen as Vice President of Quality and Regulatory Affairs. We also established and announced meaningful milestones by which we expect to measure our progress as we move the company forward on its mission of commercializing our unique single port robotic surgical solution."

"During the first quarter, we finalized user requirements for our first-generation robotic surgical system, which sets the stage for product development focused on a clear and finite set of customer-centric requirements," he added. "In addition, we continued to promote and gain visibility for Titan Medical in the medical device industry, as well as in the North American capital markets by presenting and exhibiting at a robotic surgery meeting and several reputable investor conferences. We also completed a small, targeted capital raise. Based on this strong start to the year, we are on track to deliver the next of our stated milestones during the second quarter of the year."

#### Operational highlights for the first quarter of 2017 and recent weeks include:

- Appointed David J. McNally as President, Chief Executive Officer and a Director.
- Appointed Perry Genova, PhD as Vice President of Research and Development.
- Appointed Curtis Jensen as Vice President of Quality and Regulatory Affairs.
- Completed first quarter milestone, Finalization of User Requirements for 1<sup>st</sup> Generation Robotic Surgical System.
- Received U.S. Patent No. 9,629,688 covering the Company's unique robotic surgical instruments and in particular the novel interface and drive mechanism.
- Presented and exhibited at the 2017 Society of Robotic Surgery Meeting in Miami, Florida.
- Presented at the NobleCON13 Small Cap and Emerging Growth Investor Conference in Boca Raton, Florida.

- Presented at the 29<sup>th</sup> Annual ROTH Conference in Laguna Niguel, California.
- Presented at the 6<sup>th</sup> Annual Bloom Burton & Company Healthcare Investor Conference in Toronto, Canada.

### Financial highlights for the first quarter of 2017 include (all comparisons are with the first quarter of 2016, unless otherwise stated):

- Research and development expenses for the first quarter of 2017 were \$2,946,323, compared with \$10,435,679.
- Net and comprehensive loss for the first quarter of 2017 was \$4,988,274, compared with a net and comprehensive loss of \$11,720,394.
- Completed a public offering for gross proceeds of \$5,642,537.
- Cash and cash equivalents as of March 31, 2017 were \$5,306,753, compared with \$4,339,911 as of December 31, 2016.

## About Titan Medical Inc.

Titan Medical Inc. is focused on the design and development through the planned commercialization of a robotic surgical system for use in MIS. The Company's SPORT Surgical System, currently under development, includes a surgeon-controlled robotic platform that features multi-articulating instruments for performing MIS procedures through a single incision. The surgical system also includes a workstation that provides a surgeon with an advanced ergonomic interface to the robotic platform for controlling the instruments and provides a 3D high-definition endoscopic view inside a patient's body. The SPORT Surgical System is designed to enable surgeons to perform a broad set of general abdominal, gynecologic and urologic procedures. For more information, visit the Company's website at <u>www.titanmedicalinc.com</u>.

## Forward-Looking Statements

This news release contains "forward-looking statements" which reflect the current expectations of management of the Company's future growth, results of operations, performance and business prospects and opportunities. Wherever possible, words such as "may", "would", "could", "will", "anticipate", "believe", "plan", "expect", "intend", "estimate", "potential for" and similar expressions have been used to identify these forward-looking statements. These statements reflect management's current beliefs with respect to future events and are based on information currently available to management. Forward-looking statements involve significant risks, uncertainties and assumptions. Many factors could cause the Company's actual results, performance or achievements to be materially different from any future results, performance or achievements that may be expressed or implied by such forward-looking statements, including, without limitation, those listed in the "Risk Factors" section of the Company's Annual Information Form dated March 31, 2017 (which may be viewed at www.sedar.com). Should one or more of these risks or uncertainties materialize, or should assumptions underlying the forward-looking statements prove incorrect, actual results, performance or achievements may vary materially from those expressed or implied by the forward-looking statements. Although the forward-looking statements contained in this news release. These factors should be considered carefully, and prospective investors should not place undue reliance on the forward-looking statements. Although the forward-looking statements contained in the news release are based upon what management currently believes to be reasonable assumptions, the Company cannot assure prospective investors that actual results, performance or achievements will be consistent with these forward-looking statements.

# CONTACTS:

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### TITAN MEDICAL INC. Unaudited Condensed Interim Financial Statements Three Months Ended March 31, 2017 and 2016

(IN UNITED STATES DOLLARS)

### TITAN MEDICAL INC. Unaudited Condensed Interim Balance Sheets As at March 31, 2017 and December 31, 2016 (In U.S. Dollars)

| (III U.S. Donars)                         |           | March 31,<br>2017 | ember 31,<br>2016 |
|-------------------------------------------|-----------|-------------------|-------------------|
| ASSETS                                    |           |                   |                   |
| CURRENT                                   |           |                   |                   |
| Cash and cash equivalents                 | \$        | 5,306,753         | \$<br>4,339,911   |
| Amounts receivable                        |           | 46,107            | 176,009           |
| Deposits (Note 8)                         |           | 2,033,487         | 2,016,648         |
| Prepaid expenses                          |           | 48,376            | <br>66,465        |
| Total Current Assets                      |           | 7,434,723         | 6,599,033         |
| Furniture and Equipment (Note 3)          |           | 7,965             | 9,350             |
| Patent Rights (Note 4)                    |           | 605,910           | <br>584,113       |
| TOTAL ASSETS                              | \$        | 8,048,598         | \$<br>7,192,496   |
| LIABILITIES                               |           |                   |                   |
| CURRENT                                   |           |                   |                   |
| Accounts payable and accrued liabilities  | \$        | 2,230,005         | \$<br>2,232,201   |
| Warrant liability (Note 2(g) and 6)       |           | 4,099,417         | 2,365,691         |
| Other Liabilities and Charges (Note 5(a)) |           | 2,000,000         | <br>2,000,000     |
| TOTAL LIABILTIES                          |           | 8,329,422         | <br>6,597,892     |
| SHAREHOLDERS' EQUITY                      |           |                   |                   |
| Share Capital (Note 5(a))                 |           | 116,726,136       | 112,742,810       |
| Contributed Surplus                       |           | 3,950,835         | 3,707,432         |
| Warrants (Note 5 (b))                     |           | 741,917           | 855,800           |
| Deficit                                   |           | (121,699,712)     | <br>(116,711,438) |
| Total Equity                              |           | (280,824)         | <br>594,604       |
| TOTAL LIABILITIES & EQUITY                | <u>\$</u> | 8,048,598         | \$<br>7,192,496   |
| Commitments (Note 8)                      |           |                   |                   |

# See accompanying notes to financial statements

Approved on behalf of the Board:

Martin Bernholtz Director and Chairman David McNally President and Chief Executive Officer

1

# TITAN MEDICAL INC. Unaudited Condensed Interim Statements of Shareholders' Equity and Deficit For the Periods ended March 31, 2017 and 2016 (In U.S. Dollars)

|                                                 | Share Capital<br>Number | 5  | Share Capital<br>Amount | C  | Contributed<br>Surplus | Warrants        | Deficit                 | Total<br>Equity |
|-------------------------------------------------|-------------------------|----|-------------------------|----|------------------------|-----------------|-------------------------|-----------------|
| Balance - December 31, 2015                     | 116,457,486             | \$ | 86,083,419              | \$ | 2,849,061              | \$<br>4,044,192 | \$ (93,387,942)         | \$<br>(411,270) |
| Issued pursuant to agency agreement             | 28,472,547              |    | 16,864,551              |    |                        |                 |                         | 16,864.551      |
| Issued private placement                        | 130,839                 |    | 100,000                 |    |                        |                 |                         | 100,000         |
| Share issue expense                             |                         |    | (1,678,148)             |    |                        |                 |                         | (1,678,148)     |
| Warrants exercised during the period            | 70,000                  |    | 63,288                  |    |                        |                 |                         | 63,288          |
| Options exercised during the period             | 9,000                   |    | 7,432                   |    | (3.825)                |                 |                         | 3,607           |
| Stock based compensation vested                 |                         |    |                         |    | 115,982                |                 |                         | 115,982         |
| Net and Comprehensive loss for the period       |                         |    |                         |    |                        |                 | (11,720,394)            | (11,720,394)    |
|                                                 |                         |    |                         |    |                        |                 |                         |                 |
|                                                 |                         |    |                         |    |                        |                 |                         |                 |
| Balance – March 31, 2016                        | 145,139,872             | \$ | 101,440,542             | \$ | 2,961,218              | \$<br>4,044,192 | \$ (105,108,336)        | \$<br>3,337,616 |
| Balance - December 31, 2016                     | 166,511,446             | \$ | 112,742,810             | \$ | 3,707,432              | \$<br>855,800   | \$ (116,711,438)        | \$<br>594,604   |
| Issued pursuant to agency agreement             | 21,467,200              |    | 5,642,537               |    | - , , -                | ,               |                         | 5,642,537       |
| Warrant liability issued during the period      | , ,                     |    | (1,297,810)             |    |                        |                 |                         | (1,297,810)     |
| Share issue expense                             |                         |    | (475,284)               |    |                        |                 |                         | (475,284)       |
| Warrants expired during the period              |                         |    | 113,883                 |    |                        | (113,883)       |                         |                 |
| Stock based compensation vested                 |                         |    | ĺ.                      |    | 243,403                |                 |                         | 243,403         |
| Comprehensive loss for the period               |                         |    |                         |    |                        |                 | (4,988,274)             | (4,988,274)     |
| -                                               |                         |    |                         |    |                        |                 |                         |                 |
| Balance – March 31, 2017                        | 187,978,646             | \$ | 116,726,136             | \$ | 3,950,835              | \$<br>741,917   | <u>\$ (121,699,712)</u> | \$<br>(280,824) |
| See accompanying notes to financial statements. |                         |    |                         |    |                        |                 |                         |                 |

|                                                                            | Three M<br>Ended M<br>201 | arch 31, E   | Three Months<br>nded March 31,<br>2016 |
|----------------------------------------------------------------------------|---------------------------|--------------|----------------------------------------|
|                                                                            |                           |              |                                        |
| REVENUE                                                                    | \$                        | - \$         | -                                      |
| EXPENSES                                                                   |                           |              |                                        |
| Amortization                                                               |                           | 6,594        | 5,822                                  |
| Consulting fees                                                            |                           | 162,818      | 151,857                                |
| Stock based compensation (Note 5(b))                                       |                           | 243,403      | 115,982                                |
| Insurance                                                                  |                           | 7,931        | 5,441                                  |
| Management salaries and fees                                               |                           | 625,826      | 401,934                                |
| Marketing and investor relations                                           |                           | 61,698       | 130,793                                |
| Office and general                                                         |                           | 96,301       | 91,374                                 |
| Professional fees                                                          |                           | 145,013      | 94,060                                 |
| Rent                                                                       |                           | 25,537       | 21,564                                 |
| Research and development                                                   |                           | 2,946,323    | 10,435,679                             |
| Travel                                                                     |                           | 80,195       | 128,901                                |
| Foreign exchange (gain) loss                                               |                           | (14,816)     | 339,731                                |
|                                                                            |                           | 4,386,823    | 11,923,138                             |
|                                                                            |                           |              |                                        |
| FINANCE INCOME (COST)                                                      |                           |              |                                        |
| Interest                                                                   |                           | 2,133        | 1,774                                  |
| Gain (loss) on change in fair value of warrant liability (Note 2(g) and 6) |                           | (461,996)    | 546,243                                |
| Warrant liability issue cost                                               |                           | (141,588)    | (345,273                               |
|                                                                            |                           | (601,451)    | 202,744                                |
| NET AND COMPREHENSIVE LOSS FOR THE PERIOD                                  | \$                        | 4,988,274 \$ | 11,720,394                             |
| BASIC AND DILUTED LOSS PER SHARE                                           | \$                        | (0.03) \$    | (0.09                                  |
| WEIGHTED AVERAGE NUMBER OF COMMON SHARES, Basic and Diluted                | 17                        | 0.089,313    | 123,515,544                            |

|                                                          | Three Months<br>Ended March<br>31, 2017 | Three Months<br>Ended March<br>31, 2016 |
|----------------------------------------------------------|-----------------------------------------|-----------------------------------------|
| OPERATING ACTIVITIES                                     |                                         |                                         |
| Net loss for the period                                  | \$<br>(4,988,274)                       | \$ (11,720,394)                         |
| Items not involving cash:                                |                                         |                                         |
| Amortization                                             | 6,594                                   | 5,822                                   |
| Stock based compensation                                 | 243,403                                 | 115,982                                 |
| Warrant liability – fair value adjustment                | 461,996                                 | (546,243)                               |
| Warrant liability – foreign exchange adjustment          | (26,080)                                | 248,916                                 |
| Changes in non-cash working capital items:               | ,                                       |                                         |
| Amounts receivable, prepaid expenses and deposits        | 131,152                                 | (965,676)                               |
| Accounts payable and accrued liabilities                 | (2,197)                                 | (5,056,046)                             |
| Cash used in operating activities                        | (4,173,405)                             | (17,917,639)                            |
| FINANCING ACTIVITIES                                     |                                         |                                         |
| Net proceeds from issuance of common shares and warrants | 5,167,253                               | 18,818,490                              |
| Cash provided by financing activities                    | 5,167,253                               | 18,818,490                              |
| INVESTING ACTIVITIES                                     |                                         |                                         |
| (Increase)/ decrease in furniture and equipment          | -                                       | (10,088)                                |
| Costs of Patents                                         | (27,006)                                | (76,255)                                |
| Cash used in investing activities                        | (27,006)                                | (86,343)                                |
|                                                          | (_,,)                                   | (**,****)                               |
| INCREASE IN CASH AND CASH EQUIVALENTS                    | 966,842                                 | 814,508                                 |
|                                                          | ) -                                     | ,                                       |
| CASH AND CASH EQUIVALENTS, BEGINNING OF PERIOD           | 4,339,911                               | 11,197,573                              |
|                                                          | <i>y y-</i>                             | , ,                                     |
| CASH AND CASH EQUIVALENTS, END OF PERIOD                 | \$<br>5,306,753                         | \$ 12,012,081                           |
| CASH AND CASH EQUIVALENTS COMPRISE:                      |                                         |                                         |
| Cash                                                     | \$<br>260,054                           | \$ 11,526,826                           |
| Money Market Fund                                        | 5,046,699                               | 485,255                                 |
|                                                          | \$<br>5,306,753                         | \$ 12,012,081                           |
| See accompanying notes to financial statements           |                                         | 4                                       |

### 1. <u>DESCRIPTION OF BUSINESS</u>

#### Nature of Operations:

The Company's business continues to be in the research and development stage and is focused on the continued research and development of the next generation surgical robotic platform. In the near term, the Company will continue efforts toward a clinical grade platform to be used for clinical trials and satisfaction of appropriate regulatory requirements. Upon receipt of regulatory approvals, the Company will be in a position to transition from the research and development stage to the commercialization stage. The completion of these latter stages will be subject to the Company receiving additional funding in the future.

The Company is incorporated in Ontario, Canada in accordance with the Business Corporations Act.

The address of the Company's corporate office and its principal place of business is Toronto, Canada.

#### **Basis of Preparation**:

### (a) Statement of Compliance

These condensed interim financial statements for the three months ending March 31, 2017 have been prepared in accordance with International Accounting Standard 34, Interim Financial Reporting ("IAS 34").

These condensed interim financial statements should be read in conjunction with the Company's 2016 annual financial statements which have been prepared in accordance with International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board ("IASB").

The condensed interim financial statements have been prepared using accounting policies consistent with those used in the Company's 2016 annual financial statements as well as any amendments, revisions and new IFRS, which have been issued subsequently and are appropriate to the Company.

The condensed interim financial statements were authorized for issue by the Board of Directors on May 11, 2017.

#### (b) Basis of Measurement

These condensed interim financial statements have been prepared on the historical cost basis except for the revaluation of the warrant liability, which is measured at fair value.

### (c) Functional and Presentation Currency

These condensed interim financial statements are presented in United States dollars ("U.S."), which is the Company's functional and presentation currency.

### 2. <u>SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES</u>

### (a) Use of Estimates and Judgements

The preparation of financial statements in conformity with IAS 34, Interim Financial Reporting requires management to make estimates and assumptions that affect the reported amount of assets and liabilities and disclosure of provisions at the date of the condensed interim financial statements and the reported amount of expenses during the period. Financial statement items subject to significant judgement include, the measurement of stock based compensation and the fair value estimate of the initial measurement of new warrant liabilities and remeasurement of unlisted warrant liabilities. While management believes that the estimates and assumptions are reasonable, actual results may differ.

In assessing whether the going concern assumption is appropriate, management takes into account all available information about the future, which is at least, but not limited to twelve months from the end of the reporting period. The Company expects that approximately US \$28 million in incremental funding, in addition to the proceeds of the offering completed March 16, 2017, will be required for the next 12 months, to maintain its currently anticipated pace of development. The ability of the Company to arrange such funding will depend in part on prevailing capital market conditions and the business success of the Company. There can be no assurance that the Company will be successful in its efforts to arrange additional financing on terms satisfactory to the Company. If additional funding is not available, the pace of the Company's product development plan may be reduced. However, based on internal forecasts, Management believes that the Company has sufficient funds to meet its obligations under a reduced development plan, if necessary, for the ensuing twelve months.

### Fair Value

The Black-Scholes model used by the Company to determine fair values of stock options and warrants was developed for use in estimating the fair value of the stock options and warrants. This model requires the input of highly subjective assumptions including future stock price volatility and expected time until exercise. Changes in the subjective input assumptions can materially affect the fair value estimate.

#### (b) Cash and Cash Equivalents

Cash and cash equivalents include cash balances and amounts on deposit in high interest savings accounts.

### (c) Furniture and Equipment

Furniture and equipment are recorded at cost less accumulated amortization and accumulated impairment losses, if any. The Company records amortization using the straight-line method over the estimated useful lives of the capital assets as follows:

| a) | Computer Equipment     | 3 years           |
|----|------------------------|-------------------|
| b) | Furniture and Fixtures | 3 – 5 years       |
| c) | Leasehold Improvements | Term of the lease |

### (d) Patent Rights

Patent rights are recorded at cost less accumulated amortization and accumulated impairment loss. Straight line amortization is provided over the estimated useful lives of the assets, as prescribed by the granting body, which range up to twenty years.

### (e) Impairment of long-lived assets

The Company reviews computer equipment, furniture and fixtures, leasehold improvements and patent rights for objective evidence of impairment whenever events or changes in circumstances indicate the carrying amount may not be recoverable. Recoverability is measured by comparison of the assets carrying amount to the assets recoverable amount, which is the greater of fair value less cost to sell and value in use. Value in use is measured as the expected future discounted cash flows expected to be derived from the asset. If the carrying value exceeds the recoverable amount, the asset is written down to the recoverable amount.

### 2. <u>SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES</u> (continued)

### (f) Foreign Currency

Transactions in currencies other than U.S. dollars are translated at exchange rates in effect at the date of the transactions. Foreign exchange differences arising on settlement are recognized separately in net and comprehensive loss. Monetary period end balances are converted to U.S. dollars at the rate in effect at period end date as per the Bank of Canada.

Non-monetary items in a currency other than U.S. dollars that are measured in terms of historical cost are translated using the exchange rate at the date of transaction or date of adoption of U.S functional currency, whichever is later. Foreign exchange gains and losses are included in Net and Comprehensive Loss.

### (g) Warrant Liability

In accordance with IAS 32, because the exercise prices of new warrants issued, as well as the warrants issued from the exercise of broker warrants, are not a fixed amount as they are denominated in a currency (Canadian dollar) other than the

Company's functional currency (U.S. dollar), the warrants are accounted for as a derivative financial liability. Each

Warrant Liability is initially measured at fair value and subsequent changes in fair value are recorded through Net and Comprehensive Loss for the period. The fair value of these warrants was determined initially using a comparable warrant quoted in an active market, adjusted for differences in the terms of the warrant. At March 31, 2017, the Warrant Liability of listed warrants, was adjusted to fair value measured at the market price of the listed warrants. The March 2019 and March 2021 unlisted warrants were adjusted to fair value using the Black-Scholes formula.

### (h) Fair Value Measurement

The accounting guidance for fair value measurements prioritizes the inputs used in measuring fair value into the following hierarchy:

Level 1 - Quoted prices (unadjusted) in active markets for identical assets or liabilities;

Level 2 – Inputs other than quoted prices included within Level 1 that are directly or indirectly observable:

Level 3 – Unobservable inputs in which little or no market activity exists, therefore requiring an entity to develop its own assumptions about the assumptions that market participants would use in pricing.

The fair value of our listed and unlisted Warrant liability is initially based on level 2 (significant observable inputs) and at March 31, 2017 is based on level 1, quoted prices (unadjusted) for listed warrants and level 2 for unlisted warrants.

7

# 3. <u>FURNITURE AND EQUIPMENT</u>

4.

|                                           | omputer<br>quipment | Furniture<br>nd Fixtures | Leasehold<br>provements | Total             |
|-------------------------------------------|---------------------|--------------------------|-------------------------|-------------------|
| Cost                                      | • •                 |                          | •                       |                   |
| Balance at December 31, 2016              | \$<br>80,453        | \$<br>261,483            | \$<br>172,601           | \$<br>514,537     |
| Additions (disposals)                     | -                   | -                        | -                       | -                 |
| Balance at March 31, 2017                 | \$<br>80,453        | \$<br>261,483            | \$<br>172,601           | \$<br>514,537     |
| Amortization & Impairment Losses          |                     |                          |                         |                   |
| Balance at December 31, 2016              | \$<br>71,103        | \$<br>261,483            | \$<br>172,601           | \$<br>505,187     |
| Amortization for the period               | <br>1,385           | <br>-                    | <br>-                   | <br>1,385         |
| Balance at March 31, 2017                 | \$<br>72,488        | \$<br>261,483            | \$<br>172,601           | \$<br>506,572     |
| Net Book Value                            |                     |                          |                         |                   |
| At December 31, 2016                      | \$<br>9,350         | \$<br>                   | \$<br><u> </u>          | \$<br>9,350       |
| At March 31, 2017                         | \$<br>7.965         | \$<br>-                  | \$<br>                  | \$<br>7,965       |
| <u>PATENT RIGHTS</u>                      |                     |                          |                         |                   |
| Cost                                      |                     |                          |                         |                   |
| Balance at December 31, 2016              |                     |                          | \$                      | 776,717           |
| Additions<br>Balance at March 31, 2017    |                     |                          | \$                      | 27,006<br>803,723 |
| Amortization & Impairment Losses          |                     |                          |                         |                   |
| Balance at December 31, 2016              |                     |                          | \$                      | 192,604           |
| Amortization<br>Balance at March 31, 2017 |                     |                          | \$                      | 5,209<br>197,813  |
| Net Book Value                            |                     |                          |                         |                   |
| At December 31, 2016                      |                     |                          | \$                      | 584,113           |
| At March 31, 2017                         |                     |                          | \$                      | 605,910           |
|                                           |                     |                          |                         |                   |

### 5. <u>SHARE CAPITAL</u>

# a) Authorized: unlimited number of common shares, no par value

*Issued:* 187,978,646 (December 31, 2016: 166,511,446)

Exercise prices of units, warrants and options are presented in Canadian currency as they are exercisable in Canadian dollars.

On March 16, 2017 Titan completed an offering of securities made pursuant to an agency agreement dated March 10, 2017 between the Company and Bloom Burton Securities Inc. (the "Agent"). The Company sold 21,467,200 units under the Offering at a price of CDN\$0.35 per Unit for gross proceeds of approximately \$5,642,537 (\$5,026,936 net of closing cost including cash commission of \$394,316 paid in accordance with the terms of the agency agreement). Each Unit consisted of one Common Share of the Company and (i) one-half of one Common Share purchase warrant, each whole warrant entitling the holder thereof to acquire one Common Share of the Company at an exercise price of CDN \$0.40 and expiring March 16, 2019, and (ii) one-half of one Common Share one Common Share of the Company at an exercise price of CDN \$0.50 and expiring March 16, 2021. The warrants were valued at \$1,297,810 based on the value of comparable warrants at the time and the balance of \$3,729,126 was allocated to common shares.

Pursuant to the agency agreement, in addition to the cash commission paid to the Agent, broker warrants were issued to the Agent which entitle the holder to purchase 1,500,155 Common Shares at a price of CDN \$0.35 per share prior to expiry on March 16, 2019.

On October 27, 2016 the over-allotment option to the Company's September 20, 2016 offering of 17,083,333 units at a price of CDN \$0.60 was partially exercised and the Company sold an additional 2,030,000 Units at the Offering Price of CDN \$0.60 for additional gross proceed of \$909,846 (\$845,181 net of closing costs including cash commission of \$63,689 paid in accordance with the terms of the agency agreement). Each unit comprised of one common share of Titan and one warrant. Each whole warrant entitles its holder to purchase one additional common share of Titan for CDN \$0.75 and will expire October 27, 2021. The warrants were valued at \$121,313 based on the market value at the time and the balance of \$788,533 was allocated to common shares.

Pursuant to the agency agreement, in addition to the cash commission paid to the Agent, broker warrants were issued to purchase 142,100 units. Each broker warrant entitles the holder thereof to acquire one common share of the Company at the price of CDN \$0.60 for a period of 24 months following the closing date.

On September 20, 2016 Titan completed an offering of securities pursuant to an agency agreement dated September 13, 2016 between the Company, and Bloom Burton & Co. Limited and Echelon Wealth Partners Inc. (the "Agents"). The Company sold 17,083,333 units under the Offering at a price of CDN \$0.60 per Unit for gross proceeds of \$7,749,000 (\$6,951,987 net of closing costs including cash commission of \$528,668 paid in accordance with the terms of the agency agreement). Each unit comprised of one common share of Titan and one warrant. Each whole warrant entitles its holder to purchase one additional common share of Titan for CDN \$0.75 and will expire September 20, 2021. The warrants were valued at \$1,162,350 using a comparable warrant quoted in an active market, adjusted for differences in the terms of warrant and the balance of \$6,586,650 was allocated to common shares.

Pursuant to the agency agreement, in addition to the cash commission paid to the Agent, broker warrants were issued to purchase 1,165,494 units. Each broker warrant entitles the holder thereof to acquire one unit of the Company at the price of CDN\$0.60 for a period of 24 months following the closing date. Each unit consists one common share of the Company and one common share purchase warrant. Each purchase warrant entitles the holder thereof to acquire one Share of the Company at an exercise price of CDN \$0.75 which expire September 20, 2021.

On April 14, 2016 the over-allotment option to the Company's March 31, 2016 offering of 15,054,940 units at a price of CDN \$1.00 per Unit was exercised in full and the Company sold an additional 2,258,241 Units at the Offering Price of CDN \$1.00 for additional gross proceeds of \$1,759,396 (\$1,633,407 net of closing costs including commission of \$123,158 paid in accordance with the terms of the agency agreement). Each unit comprised of one common share of Titan and one warrant. Each whole warrant entitles its holder to purchase one additional common share of Titan for CDN\$1.20 and will expire April 14, 2021. The warrants were valued at \$290,300 using a comparable warrant quoted in an active market, adjusted for differences in the terms of warrant and the balance of \$1,469,096 was allocated to common shares.

Pursuant to the agency agreement, in addition to the cash commission paid to the Agent, broker warrants were issued to purchase 158,076 units. Each broker warrant entitles the holder thereof to acquire one unit of the Company at the price of CDN\$1.00 for a period of 24 months following the closing date. Each unit consists one common share of the Company and one common share purchase warrant. Each purchase warrant entitles the holder thereof to acquire one Share of the Company at an exercise price of CDN \$1.20 which expire April 14, 2021.

On March 31, 2016 Titan completed an offering of securities pursuant to an agency agreement dated March 24, 2016 between the Company and Bloom Burton & Co. Limited (the "Agent"). The Company sold 15,054,940 units under the Offering price of CDN\$1.00 per Unit for gross proceeds of approximately \$11,607,359 (\$10,571,919 net of closing costs including cash commission of \$796,324 paid in accordance with the terms of the agency agreement). Each unit comprised of one common share of Titan and one warrant. Each whole warrant entitles its holder to purchase one additional common share of Titan for CDN\$1.20 and will expire March 31, 2021. The warrants were valued at \$1,741,104 using a comparable warrant quoted in an active market, adjusted for differences in the terms of warrant and the balance of \$9,866,255 was allocated to common shares.

Pursuant to the agency agreement, in addition to the cash commission paid to the Agent, broker warrants were issued to purchase 1,032,845 units. Each broker warrant entitles the holder thereof to acquire one unit of the Company at the price of CDN\$1.00 for a period of 24 months following the closing date. Each unit consists of one common share of the Company and one common share purchase warrant. Each purchase warrant entitles the holder thereof to acquire one Share of the Company at an exercise price of CDN \$1.20 which expire March 31, 2021.

On February 23, 2016 the over-allotment option in connection with the February 12, 2016 completed public offering of 11,670,818 units had been exercised in full. The company sold an additional 1,746,789 units at the offering price of CDN\$0.90 per Unit for gross proceeds to Titan of approximately \$1,139,937 (\$1,029,605 net of closing costs including cash commission of \$79,796 paid in accordance with the terms of the agency agreement). Each unit consists of one common share of the Company and one common share purchase warrant. Each whole warrant entitles the holder thereof to acquire one Share of the Company at an exercise price of CDN \$1.00 which expire February 23, 2021. The warrants were valued at \$215,321 using a comparable warrant quoted in an active market, adjusted for differences in the terms of warrant and the balance of \$924,616 was allocated to common shares.

On February 12, 2016 Titan completed an offering of securitiesmade pursuant to an agency agreement dated February 9, 2016 between the Company and Bloom Burton & Co. Limited (the "Agent"). The Company sold 11,670,818 units under the Offering at a price of CDN \$0.90 per Unit for gross proceeds of approximately \$7,592,101 (\$6,844,046 net of closing costs including cash commission of \$516,622 paid in accordance with the terms of the agency agreement). Each Unit consists of one common share of the Company and one common share purchase warrant. Each whole warrant entitles the holder thereof to acquire one Share of the Company at an exercise price of CDN \$1.00 which expire February 12, 2021. The warrants were valued at \$1,518,420 using a comparable warrant quoted in an active market, adjusted for differences in the terms of warrant and the balance of \$6,073,681 was allocated to common shares.

Pursuant to the agency agreement, in addition to the cash commission paid to the Agent, broker warrants were issued to purchase 916,443 units. Each broker warrant entitles the holder thereof to acquire one unit of the Company at the price of CDN\$0.90 for a period of 24 months following the closing date. Each unit consists of one common share of the Company and one common share purchase warrant. Each purchase warrant entitles the holder to acquire one common share of the Company at an exercise price of CDN\$1.00 for a period of 60 months from the date of closing.

On November 23, 2015 Titan closed a private placement of 4,290,280 common shares of Titan at a subscription price of CDN \$1.23 per common share for gross proceeds of \$4,000,000 with Longtai Medical Inc. Longtai is the Canadian subsidiary of Ningbo Long Hengtai International Trade Co. Ltd., a corporation incorporated under the laws of China with annual sales exceeding \$100,000,000. Longtai is an importer and distributer of high end medical devices for multinational companies.

Under the Agreement Titan has granted to Longtai exclusive rights to negotiate for an exclusive marketing, sales and distribution agreement for Titan's SPORT<sup>TM</sup> Surgical System in the Asia Pacific region for a period of 183 days. Longtai has paid to Titan \$2,000,000 as a deposit toward the Distributorship Agreement, which shall be repaid to Longtai in the event that the agreement is not entered into within the 183 day period. On August 24, 2016 the parties had agreed to modify their previous three month extension to monthly progress reviews. Longtai will concurrently with the signing of the Distributorship Agreement, subscribe for and purchase an additional \$4,000,000 worth of Common Shares at a share issue price equal to the 5-day VWAP (less a 12.5% discount). If the Distributorship Agreement is signed and the second \$4,000,000 private placement is completed, Titan will retain \$1,400,000 of the Distributorship Deposit and repay \$600,000 to Longtai. (See subsequent events note)

### b) Warrants, Stock Options and Compensation Options

Subject to shareholder approval, Titan has reserved and set aside up to 10% of the issued and outstanding shares of Titan for granting of options to employees, officers, consultants and advisors. At, March 31, 2017, 2,572,605 common shares (December 31, 2016: 9,448,895) were available for issue in accordance with the Company's stock option plan. The terms of these options are determined by the Board of Directors. A summary of the status of the Company's outstanding stock options as of March 31, 2017 and March 31, 2016 and changes during the periods ended on those dates is presented in the following table:

|                    | Three Months Ended<br>March 31, 2017 |    |                                                           | Three Mo<br>March                 |    |                                                          |
|--------------------|--------------------------------------|----|-----------------------------------------------------------|-----------------------------------|----|----------------------------------------------------------|
|                    | Number of<br><u>stock options</u>    | W  | /eighted-average<br><u>exercise price</u><br><u>(CDN)</u> | Number of<br><u>stock options</u> |    | eighted-average<br><u>exercise price</u><br><u>(CDN)</u> |
| Balance, beginning | 7,202,250                            | \$ | 1.10                                                      | 2,897,763                         | \$ | 1.20                                                     |
| Granted            | 9,825,572                            | \$ | 0.55                                                      | 644,292                           | \$ | 1.08                                                     |
| Exercised          | -                                    | \$ | 0.00                                                      | (9,000)                           | \$ | 0.56                                                     |
| Expired/Forfeited  | (802,562)                            | \$ | 1.19                                                      | (80,000)                          | \$ | 1.27                                                     |
| Balance, ending    | 16,225,260                           | \$ | 0.76                                                      | 3,453,055                         | \$ | 1.26                                                     |

The weighted-average remaining contractual life and weighted-average exercise price of options outstanding and of options exercisable as at March 31, 2017 are as follows:

|                         | <b>Options Out</b>           | standing                                            |                                                                     |                              | Orthurs Francischi                                                                   |
|-------------------------|------------------------------|-----------------------------------------------------|---------------------------------------------------------------------|------------------------------|--------------------------------------------------------------------------------------|
| Exercise<br>price (CDN) | Number<br><u>outstanding</u> | Weighted-<br>average exercise<br><u>price (CDN)</u> | Weighted-average<br>remaining<br>contractual life<br><u>(years)</u> | Number<br><u>exercisable</u> | Options Exercisable<br>Weighted-<br>average<br><u>exercise price</u><br><u>(CDN)</u> |
| \$0.43                  | 1,000,000                    | \$0.43                                              | 7.00                                                                | -                            | \$0.43                                                                               |
| \$0.50                  | 500,000                      | \$0.50                                              | 7.00                                                                | -                            | \$0.50                                                                               |
| \$0.56                  | 663,368                      | \$0.56                                              | 1.34                                                                | 663,368                      | \$0.56                                                                               |
| \$0.57                  | 8,325,572                    | \$0.57                                              | 7.00                                                                | -                            | \$0.57                                                                               |
| \$0.83                  | 49,591                       | \$0.83                                              | 0.97                                                                | 49,591                       | \$0.83                                                                               |
| \$0.96                  | 305,107                      | \$0.96                                              | 1.72                                                                | 305,107                      | \$0.96                                                                               |
| \$1.00                  | 3,488,158                    | \$1.00                                              | 4.25                                                                | 1,129,206                    | \$1.00                                                                               |
| \$1.02                  | 193,478                      | \$1.02                                              | 3.73                                                                | 145,998                      | \$1.02                                                                               |
| \$1.08                  | 644,292                      | \$1.08                                              | 3.83                                                                | 644,292                      | \$1.08                                                                               |
| \$1.39                  | 19,746                       | \$1.39                                              | 2.71                                                                | 19,746                       | \$1.39                                                                               |
| \$1.39                  | 47,532                       | \$1.39                                              | 0.12                                                                | 47,532                       | \$1.39                                                                               |
| \$1.51                  | 16,796                       | \$1.51                                              | 3.37                                                                | 16,796                       | \$1.51                                                                               |
| \$1.72                  | 485,985                      | \$1.72                                              | 3.19                                                                | 333,597                      | \$1.72                                                                               |
| \$1.76                  | 106,096                      | \$1.76                                              | 1.93                                                                | 106,096                      | \$1.76                                                                               |
| \$1.94                  | 379,539                      | \$1.94                                              | 2.14                                                                | 303,652                      | \$1.94                                                                               |
|                         | 16,225,260                   | \$0.76                                              | _                                                                   | 3,764,981                    | \$1.10                                                                               |

Options are granted to Directors, Officers, Employees and Consultants at various times. Options are to be settled by physical delivery of shares.

Stock options granted to non-employees, officers or directors are valued using the Black-Scholes pricing model, rather than on the basis of the fair value of the services received.

The Company does on occasion use the services of consultants. Options granted in these situations are valued on the basis of fair value of the services received.

| Grant date/Person entitled                                       | Number of Options                                                              | Vesting Conditions                                                                       | <b>Contractual life of Options</b> |
|------------------------------------------------------------------|--------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|------------------------------------|
| January 27, 2016, option grants to<br>Consultants and Employees  | 644,292                                                                        | immediately                                                                              | 5 years                            |
| August 24, 2016, options granted to<br>Directors and Consultants | 1,129,206                                                                      | immediately                                                                              | 5 years                            |
| August 24, 2016, options granted to Employees                    | 2,886,619                                                                      | Vest as to 1/3 of the total number of<br>Options granted, every year from<br>Option Date | 5 years                            |
| January 17, 2017, option grants to<br>Employees                  | 8,325,572                                                                      | Vest as to 1/4 of the total number of<br>Options granted, every year from<br>Option Date | 7 years                            |
| February 7, 2017, option grants to<br>Employees                  | bruary 7, 2017, option grants to 500,000 Vest as to 1/4 of the total number of |                                                                                          | 7 years                            |
| March 16, 2017, option grants to<br>Employees                    | 1,000,000                                                                      | Vest as to 1/4 of the total number of<br>Options granted, every year from<br>Option Date | 7 years                            |

### Inputs for Measurement of Grant Date Fair Values

The grant date fair value of all share based payment plans was measured based on the Black-Scholes formula. Expected volatility was estimated by considering historic average share price volatility. The inputs used in the measurement of fair values at grant date of the share based option plan are as follows:

Directors, Management, Employees, Medical Advisors and Consultants

|                                 | <u>2017</u>       | 2016            |
|---------------------------------|-------------------|-----------------|
|                                 |                   |                 |
| Fair Value at grant date (CDN)  | \$0.300 - \$0.342 | \$0.28 - \$0.52 |
| Share price at grant date (CDN) | \$0.34 - \$0.54   | \$0.68 - \$1.08 |
| Exercise price (CDN)            | \$0.43 - \$0.57   | \$1.00 - \$1.08 |
| Expected Volatility             | 82.4% - 82.8%     | 73.34% - 79.67% |
| Option Life                     | 4 years           | 3 years         |
| Expected dividends              | nil               | nil             |
| Risk-free interest rate         | 0.89% - 1.01%     | 0.44% - 0.57%   |
| (based on government bonds)     |                   |                 |

The following is a summary of outstanding warrants included in Shareholder's Equity as at March 31, 2017 and March 31, 2016 and changes during the periods then ended.

|                             | Three Months<br>Ended March<br>31, 2017 |               | Three Months<br>Ended March<br>31, 2016 |                 |
|-----------------------------|-----------------------------------------|---------------|-----------------------------------------|-----------------|
|                             | Number of<br>Warrants                   | Amount        | Number of<br>Warrants                   | Amount          |
| Opening Balance             | 5,651,434                               | \$<br>855,800 | 14,257,434                              | \$<br>4,044,192 |
| Exercised during the period |                                         |               |                                         |                 |
| Exercise Price of CDN\$1.25 |                                         |               |                                         |                 |
| Expiry March 13, 2018       | -                                       | -             | -                                       | -               |
| Expired during the period   |                                         |               |                                         |                 |
| Exercise Price of CDN\$1.77 |                                         |               |                                         |                 |
| Expiry March 14, 2017       | (390,729)                               | (113,883)     |                                         |                 |
| Ending Balance              | 5,260,705                               | \$<br>741,917 | 14,257,434                              | \$<br>4,044,192 |

TITAN MEDICAL INC. Notes to the Unaudited Condensed Interim Financial Statements Three Months Ended March 31, 2017 (In U.S. Dollars)

# 6. <u>WARRANT LIABILTY</u>

|                                               | Three Months<br>Ended March<br>31, 2017 |              | Year Ended<br>December<br>31, 2016 |              |
|-----------------------------------------------|-----------------------------------------|--------------|------------------------------------|--------------|
|                                               | Number of<br>Warrants                   | Amount       | Number of<br>Warrants              | Amount       |
| Balance, beginning                            | 77,451,086                              | \$ 2,365,691 | 27,676,965                         | \$ 2,137,751 |
| Issue of warrants expiring, February 12, 2021 |                                         |              | 11,670,818                         | 1,518,420    |
| Issue of warrants expiring, February 23, 2021 |                                         |              | 1,746,789                          | 215,321      |
| Issue of warrants expiring, March 31, 2021    |                                         |              | 15,054,940                         | 1,741,104    |
| Issue of warrants expiring April 14, 2021     |                                         |              | 2,258,241                          | 290,300      |
| Issue of warrants expiring September 20, 2021 |                                         |              | 17,083,333                         | 1,162,350    |
| Issue of warrant expiring October 27, 2017    |                                         |              | 2,030,000                          | 121,313      |
| Issue of warrants expiring March 16, 2019     | 10,733,600                              | 572,326      |                                    |              |
| Issue of warrants expiring March 16, 2021     | 10,733,600                              | 725,484      |                                    |              |
| Warrants exercised during the period          |                                         |              | (70,000)                           | (9,654)      |
| Warrants expired during the period            | (8,317,856)                             | -            |                                    |              |
| Foreign exchange adjustment                   | -                                       | (26,080)     | -                                  | 138,799      |
| Fair value adjustment                         | <u> </u>                                | 461,996      | <u> </u>                           | (4,950,013)  |
| Balance, ending                               | 90,600,430                              | \$ 4,099,417 | 77,451,086                         | \$ 2,365,691 |

In addition to the warrants listed above, at March 31, 2017, the Company has issued and outstanding, 4,915,113 broker unit warrants expiring between February 23, 2018 and March 16, 2019.

### 7. <u>INCOME TAXES</u>

### Losses carried forward

The Company has non-capital losses of approximately \$119,321,495 available to reduce future income taxes. The non-capital losses expire approximately as follows:

| 2027 | 786,557                |
|------|------------------------|
| 2028 | 169,954                |
| 2029 | 186,708                |
| 2030 | 2,003,596              |
| 2031 | 12,735,836             |
| 2032 | 6,517,436<br>8,856,497 |
| 2033 | 8,856,497              |
| 2034 | 15,819,741             |
| 2035 | 43,934,918             |
| 2036 | 28,310,254             |
|      | 119,321,495            |

The Company has accumulated Qualifying Research and Development expenses of \$6,276,334 as a result of prior year's research and development. These expenditures may be carried forward indefinitely and used to reduce taxable income in future years.

As a result of a recent Canada Revenue Agency (CRA) audit completed in the second quarter of 2016, regarding Titan's 2011 Amadeus SR&ED claim, the 2011 loss of \$9,423,694 has been adjusted to \$12,735,836 and the qualifying SR&ED expenditures has been revised from \$9,439,430 to \$6,276,334. The amounts regarding the foreign content made in the claim has been disallowed by CRA. Titan has appealed this decision and is awaiting the outcome.

### 8. <u>COMMITMENTS</u>

Effective July 15, 2011, the Company entered into a lease for premises in Ancaster, Ontario for its research and development program.

Effective February 1, 2012, the Company exercised its option to lease an additional 4,477 square feet adjacent to its existing research and development facilities in Ancaster, Ontario. The additional space is under the same terms and conditions as the original lease, dated July 15, 2011.

Effective August 22, 2013, 3,957 square feet of this additional space has been sublet for a term of 5.5 years at a monthly rent of \$2,325 per month to July 31, 2016 and \$2,635 per month thereafter. Effective April 30, 2015 the Company entered into a lease surrender agreement with the landlord for initial space leased on July 15, 2011. As a result, the Company now has only the space leased February 1, 2012 and it has been sublet.

Effective January 26, 2016 the Company entered into a twelve month lease at its corporate office located at 170 University Avenue, Toronto Ontario, at an annual rental of CDN \$116,875. On November 25, 2016 a new lease agreement was signed, to commence February 1, 2017 at a monthly rent of CDN \$9,740. The new agreement which includes a 60 days' termination notice, expires January 31, 2018.

As a part of its program of research and development around the SPORT<sup>TM</sup> Surgical System, the Company has outsourced certain aspects of the design and development to a U.S. based technology and development company. At March 31, 2017, \$435,561 in purchase orders remains outstanding. The Company also has on deposit with this same U.S. supplier \$906,010 to be applied against future invoices.

During the quarter the Company issued further purchase orders to an additional U.S. supplier to provide further design and engineering services. At March 31, 2017, \$2,437,708 in purchase orders remains outstanding. The Company also has on deposit with this same U.S. supplier \$1,127,476 to be applied against future invoices.

### 8. <u>COMMITMENTS</u> (continued)

The Company has entered into a number of licensing agreements with suppliers and Universities that will require payments to be made to them, in future years, based on the achievement, by the Company, of certain milestones which could total up to \$825,000. Subsequently, following commercialization, royalty payments will be required, based on a percentage of annual net sales of the licensed product, in the range of 4% to 6% per royalty agreement.

### 9. <u>RELATED PARTY TRANSACTIONS</u>

During the three months ended March 31, 2017, transactions between the Company and directors, officers and other related parties were related to compensation matters in the normal course of operations and are measured at the exchange amount, which is the amount of consideration established and agreed to by the related parties.

Compensation to the Executive Officers amounted to \$367,180 for the three months ended March 31, 2017 compared to \$242,049 for the same period in 2016.

In the second quarter of 2015, Titan entered into an Option Agreement ("Agreement") with a Company that has developed a patent for Markerless Tracking of Robotic Surgical Tools that can be incorporated into Titan's SPORT<sup>TM</sup>

Surgical System. Under the terms of the Agreement Titan will pay to the Company a non-refundable Option Fee of \$300,000 as follows:

\$100,000 upon signing the Agreement \$100,000 January 2, 2016 (paid) \$100,000 October 1, 2016 (paid)

In addition, Titan shall have the right at any time up to and including February 2, 2017, to exercise the Option by paying a fee of \$1.3 million for those rights. This License Fee shall be due and payable upon execution of the License Agreement. Prior to February 2, 2017, Titan gave notice that it would not exercise the option.

A former member of Titan's Senior Management is also a Director, member of the company senior management team, co-inventor of the technology, co-founder of the Company and a significant shareholder of the Company.

During the period, an individual related to a former executive, provided consulting services in support of marketing efforts for the European market. Compensation of \$24,720 plus reimbursement of appropriate expenses was paid to the individual.

### 9. <u>RELATED PARTY TRANSACTIONS (continued)</u>

Officers and Directors of the Company control approximately 1.10% of the Company.

|                  | March 31, 2017 |       | December 31, 2016 |      |  |
|------------------|----------------|-------|-------------------|------|--|
|                  | BASE           | %     | BASE              | %    |  |
| John Barker      | 250,632        | 0.133 | 250,632           | 0.15 |  |
| Martin Bernholtz | 1,571,500      | 0.84  | 1,571,500         | 0.94 |  |
| John Hargrove    | -              | -     | 298,200           | 0.18 |  |
| David McNally    | 20,000         | 0.01  | -                 | -    |  |
| Stephen Randall  | 197,307        | 0.11  | 102,800           | 0.06 |  |
| Reiza Rayman     | -              | -     | 4,357,117         | 2.62 |  |
| Bruce Wolff      | 17,552         | 0.01  | 17,552            | 0.01 |  |
| TOTAL            | 2,056,991      | 1.10  | 6,597,801         | 3.96 |  |
|                  |                |       |                   |      |  |
| Common Shares    |                |       |                   |      |  |
| Outstanding      | 187,978,646    | 100%  | 166,511,446       | 100% |  |

### 10. <u>SEGMENTED REPORTING</u>

The Company operates in a single reportable operating segment – the research and development of SPORT<sup>TM</sup>, the next generation of surgical robotic platform.

# 11. <u>SUBSEQUENT EVENTS</u>

On April 17, 2017, the company granted 500,000 incentive stock options to an employee of the Company pursuant to its incentive stock option plan. The stock options vest over four years and are exercisable until April 17, 2024 at a price of CDN \$0.43.

On April 28, 2017, the Company announced that it had terminated negotiations with Longtai Medical Inc. for the development of a marketing, sales and distribution agreement for Titan's SPORT Surgical System in the Asia Pacific region. Longtai had paid to Titan a deposit of \$2,000,000 which will now be repaid to Longtai.

On May 3, 2017 260,000 warrants expiring March 2019 were exercised for proceeds of \$104,000 and the issuance of 260,000 common shares.

#### TITAN MEDICAL INC.

#### MANAGEMENT'S DISCUSSION AND ANALYSIS

#### FOR THE THREE MONTHS ENDED MARCH 31, 2017

#### (IN UNITED STATES DOLLARS)

#### This Management's Discussion and Analysis ("MD&A") is dated May 11, 2017.

This MD&A provides a review of the performance of Titan Medical Inc. ("Titan" or the "Company") and should be read in conjunction with its unaudited condensed interim financial statements for the three months ended March 31, 2017 (and the notes thereto) (the "Financial Statements"). The Financial Statements have been prepared in accordance with International Accounting Standards 34, Interim Financial Reporting ("IAS 34").

### Internal Control over Financial Reporting

During the three months ended March 31, 2017, no changes were made to the Company's internal control over financial reporting that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

#### Forward-Looking Statements

This discussion includes certain statements that may be deemed "forward-looking statements". All statements in this discussion other than statements of historical facts that address future events, developments or transactions that the Company expects, are forward-looking statements. These forward-looking statements are made as of the date of this MD&A. Forward-looking statements are frequently, but not always, identified by words such as "expects", "expected", "expectation", "anticipates", "believes", "intends", "estimates", "predicts", "potential", "targeted", "plans", "possible", "milestones", "objectives" and similar expressions, or statements that events, conditions or results "will", "may", "could", or "should" occur or be achieved. Forward-looking statements that appear in this MD&A include: the Company aims to pursue a broad set of surgical indications for the SPORT Surgical System, including general abdominal, gynecologic, urologic and colorectal procedures; the SPORT Surgical System is being developed with the goal of inserting the interactive multi-articulating instruments and a 3D high definition vision system into a patient's abdominal body cavity through a single access port; the Company anticipates expanding its intellectual property portfolio by filing additional patent applications as it progresses in the development of robotic surgical technologies, acquiring and/or by licensing suitable technologies; the Company's current plan is to raise sufficient financing and to continue the development and commercialization of the SPORT Surgical System at estimated incremental costs, and according to the timeline, as set forth in the table below; the Company intends to utilize a direct sales force, distribution partner(s) or a combination thereof to initiate marketing of the SPORT Surgical System to hospitals; the Company's material development milestone chart included herein; the Company's expected timing for completion of its second milestone.

Although the Company believes the expectations expressed in such forward-looking statements are based on reasonable assumptions, such statements are not guarantees of future performance and actual results or developments may differ materially from those in the forward-looking statements. Forward-looking statements are statements about the future and are inherently uncertain, and actual results of the Company or other future events or conditions may differ materially from those reflected in the forward-looking statements due to a variety of risks, uncertainties and other factors, such as the requirement for additional financing, ability to continue as a going concern, history of losses, reliance on strategic alliances, dependence on key personnel, ability to attract qualified employees, breach and loss of trade secrets, dependence on third parties, competition, infringement of intellectual property rights, intellectual property risk, current global financial conditions, trademarks, recent changes in senior management, conflict of interest, results of operations, difficulty forecasting future results, uncertain market, technology advancements, insurance and uninsured risks, ability to license other intellectual property, government regulation, profitability, changes in government policy, changes in accounting and tax rules, contingent liabilities, uncertainty of milestones, product and services not completely developed, manufacturing risks, reliance on suppliers and developers, product defect risk, supplier risk, factors set forth starting on page 16 of the Company's Annual Information Form for the 2016 fiscal year, available on SEDAR at www.sedar.com, which are expressly incorporated by reference into the MD&A.

There may be other factors that cause actions, events or results not to be as anticipated, estimated or intended. Other than as specifically required by law, the Company undertakes no obligation to update any forward-looking statement to reflect events or circumstances after the date on which such statement is made, or to reflect the occurrence of unanticipated events, whether as a result of new information, future events or results or otherwise. Investors are cautioned that any such statements are not guarantees of future performance and that actual results or developments may differ materially from those projected in the forward-looking statements. Accordingly, investors should not place undue reliance on forward-looking statements.

### History and Business

The Company is, and since July 28, 2008 has been, incorporated under the Business Corporations Act (Ontario).

The address of the Company's corporate office and its principal place of business is 170 University Avenue, Suite 1000, Toronto, Ontario, Canada M5H 3B3.

The Company was formed by way of amalgamation under the *Business Corporations Act* (Ontario) on July 28, 2008. Titan does not have any subsidiaries. The Company is committed to developing its robotic surgical system for use in connection with minimally invasive surgery (surgery without large incisions). From inception, the Company has focused on research and development toward its robotic surgical technology and building its intellectual property portfolio, trade secrets and scientific and technical knowledge base.

#### **Overall Performance**

The Company's business is focused on the research and development of computer-assisted robotic surgical technologies for application in minimally invasive surgery ("MIS"). The Company is currently developing a single-port robotically-assisted surgical system, identified as the SPORT Surgical System. The SPORT Surgical System comprises a patient cart, a surgeon-controlled robotic platform, that includes a 3D high definition vision system and multi-articulating instruments for performing MIS procedures, and a surgeon workstation that provides the surgeon with an advanced ergonomic interface to the patient cart and a 3D endoscopic view of inside a patient's body during MIS procedures via a 3D high definition display. With the SPORT Surgical System, the Company intends to pursue a broad set of surgical indications, including general abdominal, gynecologic, urologic and colorectal procedures.

Development of the SPORT Surgical System has proceeded in response to "voice of customer" feedback, consultation with medical technology development firms and consultants, and engagement with the Company's Surgeon Advisory Board (the "Surgeon Advisory Board") comprised of industry-leading surgeons. This has allowed the Company to design a system that includes the traditional advantages of robotic surgery, including tele-operation, 3D stereoscopic imaging and restoration of instinctive control, and also new and enhanced features including a more ergonomic-friendly surgeon workstation user interface and a robotic platform with improved instrument dexterity. The ergonomic design of the workstation includes customized surgeon controllers, a second display for delivering ancillary information to the surgeon and elbow supports instead of forearm supports to provide an overall more comfortable working position. The surgical system is designed to adapt to the surgeon instead of having the surgeon adapt to the surgeon surgeon successing the surgeon adapt to the surgeon adapt to the surgeon surgeon successing to the surgeon successing the surgeon surgeon successing to the surgeon successing to the surgeon successing t

The Company has completed research and early development of the major components of the SPORT Surgical System including multi-articulating instruments with multiple degrees of freedom of movement, a custom designed 3D high definition vision system capable of motorized pan and tilt and surgeon controls that allow the user to control the instruments through movements of the surgeon controllers.

The SPORT Surgical System patient cart is being developed to deliver interactive multi-articulating instruments and a 3D high definition vision system into a patient's abdominal body cavity through a single access port. The design of the patient cart includes an insertion tube of approximately 19 millimeter (mm) diameter, capable of insertion into the patient's body cavity through a skin incision of approximately 25 mm. The insertion tube includes a collapsible distal end portion incorporating a 3D high definition camera module that once inserted, is configured to deploy into a working configuration wherein the camera module and multi-articulating instruments can be controlled by a surgeon via the workstation. The reusable multi-articulating, snake-like instruments are designed to couple with sterile detachable single patient use robotic end effectors that would provide first use quality in every case and eliminate the reprocessing of the complete instrument. The use of reposable (re-usable for a specific number of uses) robotic instruments and single patient use end effectors is intended to minimize the cost per procedure. The patient cart is also designed to include a mast, a boom and wheels for optimal configurability for a variety of surgical indications and the ability to be maneuvered within the operating room, or redeployed within hospitals and surgical centers, where applicable.

The Company continuously evaluates its technologies under development for intellectual property protection. As of March 31, 2017, the Company has ownership or certain exclusive rights to 12 patents and 31 patent applications. The Company anticipates expanding its intellectual property portfolio by filing additional patent applications as it progresses in the development of robotic surgical technologies, acquiring and/or by licensing suitable technologies. The Company previously entered into exclusive license agreements with several organizations including the Trustees of Columbia University. The agreement with Columbia University provides the Company with certain rights for the development and commercialization of robotic surgical technology for use in single port surgery, providing a basis for the development of the SPORT Surgical System.

As part of its development and commercialization efforts, the Company has established certain milestones that it uses to assess its progress towards developing commercially viable robotic surgical technologies. These milestones relate to technology and design advancements as well as to targeted dates for pre-clinical studies and completion of regulatory submissions. To assess progress, the Company regularly tests and evaluates its technology. If such evaluations indicate technical defects or failure to meet cost or performance goals, the Company's commercialization schedule could be delayed and potential purchasers of its initial commercial systems may decline to purchase them or may choose to purchase alternative technologies.

Among other things, the future success of the Company is substantially dependent on continuing its research and development program, including the ongoing support of any outsourced research and development suppliers.

In addition to being capital intensive, research and development activities relating to the sophisticated technologies that the Company is developing are inherently uncertain as to future success and the achievement of desired results. If delays or problems occur during the Company's ongoing research and development activities, important financial and human resources may need to be diverted toward resolving such delays or problems. Further, there is material risk that the Company's research and development activities may not result in a functional, commercially viable product or one that is approved by regulatory authorities.

The Company had previously announced plans to build first-in-human units in the first quarter of 2016 after the completed build of the two engineering verification units. However, due to the revision of the development path, the first-in-human units have been repurposed as engineering verification units ("EV units") and were completed during the first quarter of 2016. The EV units incorporate substantially all of the previous design and engineering work completed on the SPORT Surgical System and will be used for pre-clinical live animal and human cadaver studies. The live animal and human cadaver studies are expected to provide comprehensive and high quality information towards anticipated regulatory submissions to the United States Food and Drug Administration ("FDA") and regulatory authorities for the CE Mark.

Developments during the first three months of 2017 include:

- The Company achieved its milestone for the first quarter of 2017, with the finalization of user requirements for the first generation of robotic surgical system.

- Effective April 3, 2017, Curtis R. Jensen was appointed Vice President of Quality and Regulatory Affairs.
- Effective February 6, 2017, Perry A. Genova was appointed Vice President of Research and Development.
- Effective January 9, 2017, David McNally also assumed the role of President when the then-current President of the Company resigned.
- Effective January 3, 2017, David J. McNally was appointed Chief Executive Officer and a Director of the Company.

#### **Discussion of Operations**

The Company incurred a net and comprehensive loss of \$4,988,274 during the three months ended March 31, 2017, compared with a net and comprehensive loss of \$11,720,394 for the three months ended March 31, 2016. This decrease in net and comprehensive loss for the period is attributed primarily to the decrease in Research and Development operations in 2017 when compared to 2016. In addition, foreign exchange (gain) or loss in the three months ended March 31, 2017, before foreign exchange on warrant liabilities was \$11,264, compared to \$90,815 for the comparable period in 2016. At March 31, 2017 the foreign exchange on the warrant liabilities was a gain of \$26,080, versus a loss of \$248,916 for the comparable period in 2016

During the three months ended March 31, 2017, corporate efforts were ongoing related to furthering key strategic relationships, carrying on efforts to secure the Company's intellectual property through the patent and licensing process, and continuing the development of the Company's robotic surgical system. As of March 31, 2017, the Company has ownership or exclusive rights to twelve patents and thirty one patent applications filed with various patent offices.

Research and development expenditures (all of which were expensed in the period) for the three months ended March 31, 2017 and March 31, 2016, respectively, were as follows:

| Research and Development Expenditures                                             | Three Months Ended<br>March 31, 2017 | Three Months Ended<br>March 31, 2016 |
|-----------------------------------------------------------------------------------|--------------------------------------|--------------------------------------|
| Intellectual property development<br>License and royalties<br>Product development | \$5,000<br>5,000<br>2,936,323        | 76,000                               |
| Total                                                                             | \$2,946,323                          | \$10,435,679                         |

Research and development expenditures decreased in the three months ended March 31, 2017 compared to the same period in 2016. This decrease was primarily due to a reduction in available funding in 2017 when compared to 2016.

Excluding foreign exchange, general and administrative expenses for the three months ended March 31, 2017 amounted to \$1,455,316 compared to \$1,147,728 for the comparable period in 2016. This increase in Q1 2017 over Q1 2016 is attributed primarily to increases in salaries, stock compensation and professional fees, offset by decreases in travel and marketing/investor relations costs.

The gain or (loss) attributed to change in fair value of warrants for the three months ended March 31, 2017 was a loss of (\$461,996), compared to a gain of \$546,243 for the three months ended March 31, 2016. The change in gain or (loss) of (\$1,008,239) for the three months ended March 31, 2017 reflects an increase in fair value of warrants in 2017 compared to 2016.

Titan realized \$2,133 of interest income in the three months ended March 31, 2017 and \$1,774 in the three months ended March 31, 2016.

For a discussion with regard to the status of the development of the SPORT Surgical System, please see 'Development Objectives'' below.

### Summary of Quarterly Results

The following is selected financial data for each of the eight most recently completed quarters, derived from the Company's financial statements, calculated in accordance with IFRS.

|                                                     | Three Months<br>Ended March<br>31, 2017 | Three Months<br>Ended December<br>31, 2016 | Three Months<br>Ended September<br>30, 2016 | Three Months<br>Ended June<br>30, 2016 | Three Months<br>Ended March<br>31, 2016 | Three Months<br>Ended December<br>31, 2015 | Three Months<br>Ended September<br>30, 2015 | Three Months<br>Ended June<br>30, 2015 |
|-----------------------------------------------------|-----------------------------------------|--------------------------------------------|---------------------------------------------|----------------------------------------|-----------------------------------------|--------------------------------------------|---------------------------------------------|----------------------------------------|
| Net sales                                           | -                                       | -                                          | -                                           | -                                      | -                                       | -                                          | -                                           | -                                      |
| Net and<br>Comprehensive<br>Loss from<br>operations | \$4,988,274                             | \$2,008,365                                | \$1,659,863                                 | \$7,934,874                            | \$11,720,394                            | \$13,136,604                               | \$10,899,586                                | \$8,250,823                            |
| Basic and<br>diluted loss<br>per share              | \$0.03                                  | \$0.01                                     | \$0.01                                      | \$0.05                                 | \$0.09                                  | \$0.12                                     | \$0.11                                      | \$0.08                                 |

Significant changes in key financial data from the three months ended June 30, 2015 to the three months ended March 31, 2017 reflects the ongoing development of the SPORT Surgical System. Also included is the requirement to revalue the Company's warrant liability at fair value with subsequent changes recorded through net and comprehensive loss for the period.

#### Liquidity and Capital Resources

The Company currently does not generate any revenue or income (other than interest income on its cash balances) and accordingly, it is (and it will be for the foreseeable future) dependent primarily upon equity financing for any additional funding required for development and operating expenses.

The ability of the Company to arrange such financing in the future will depend in part upon prevailing capital market conditions and the business success of the Company. There can be no assurance that the Company will be successful in its efforts to arrange additional financing on terms satisfactory to the Company. If additional financing is raised by the issuance of shares or convertible securities from treasury, control of the Company may change and shareholders may suffer additional dilution. If adequate funds are not available, or are not available on acceptable terms, the Company may not be able to take advantage of opportunities, or otherwise to continue its technology development program at its current pace.

Titan had \$5,306,753 of cash and cash equivalents on hand and \$2,230,005 of accounts payable and accrued liabilities, excluding warrant liability, at March 31, 2017, compared to \$4,339,911 and \$2,232,201 respectively, at December 31, 2016. Titan's working capital as at March 31, 2017 was \$3,204,718, excluding warrant liability, compared to \$2,366,832, at December 31, 2016.

Below is a table that sets out the various series of Titan warrants that were previously issued, using historic rates. The disclosure of the potential proceeds in the last column of the table below assumes all warrants are exercised on or before the expiry date. However, there is no assurance that any warrants will be exercised prior to their expiry.

| Ticker Symbol | Issue Date         | Expiry Date        | Number Issued | Number Outstanding | Exercise Price<br>(CDN \$) | Potential Proceeds<br>(CDN \$) |
|---------------|--------------------|--------------------|---------------|--------------------|----------------------------|--------------------------------|
| TMD.WT.C      | March 13, 2013     | March 13, 2018     | 6,260,763     | 5,260,705          | \$1.25                     | 6,575,881                      |
| TMD.WT.F      | November 16, 2015  | November 16, 2020  | 7,012,195     | 7,012,195          | \$1.60                     | 11,219,512                     |
| TMD.WT.G      | February 12, 2016  | February 12, 2021  | 11,670,818    | 11,600,818         | \$1.00                     | 11,600,818                     |
| TMD.WT.G      | February 23, 2016  | February 12, 2021  | 1,746,789     | 1,746,789          | \$1.00                     | 1,746,789                      |
| TMD.WT.H      | March 31, 2016     | March 31, 2021     | 15,054,940    | 15,054,940         | \$1.20                     | 18,065,928                     |
| TMD.WT.H      | April 14, 2016     | March 31, 2021     | 2,258,241     | 2,258,241          | \$1.20                     | 2,709,889                      |
| TMD.WT.I      | September 20, 2016 | September 20, 2021 | 17,083,333    | 17,083,333         | \$0.75                     | 12,812,500                     |
| TMD.WT.I      | October 27, 2016   | September 20, 2021 | 2,030,000     | 2,030,000          | \$0.75                     | 1,522,500                      |
| NOT LISTED    | March 16, 2017     | March 16, 2019     | 10,733,600    | 10,473,600         | \$0.40                     | 4,189,440                      |
| NOT LISTED    | March 16, 2017     | March 16, 2021     | 10,733,600    | 10,733,600         | \$0.50                     | 5,366,800                      |
| TOTAL         |                    |                    | 84,584,279    | 83,254,221         |                            | 75,810,057                     |

### **Development Objectives**

The Company employs a combination of internal resources and external development firms to execute the research, development and commercialization plan for the Company's robotic surgical system.

At this time, the Company's primary development objectives and milestones in 2017 will be to advance human factors studies, formalize user requirements, stabilize the design and development of the system, and initiate pre-clinical studies. Pre-clinical studies performed in live animal subjects by surgeons with fully-functional prototypes can provide valuable insights regarding system performance, as well as the suitability of related surgical accessories, during representative surgical procedures under controlled laboratory conditions.

Based on the evolution of the SPORT design, the creation and refinement of software for production system functionality has not yet commenced. As the system design matures early in the year, the Company plans to commence this process in the first half of 2017, and anticipates that it will continue as an intensive, ongoing process through the balance of 2017 with anticipated completion in 2018. As software development is a parallel effort, it is anticipated that insights gained from human factors and pre-clinical studies will provide opportunities to optimize the system for clinical use.

The Company estimates that it will require a minimum of approximately U.S.\$10 million to fund its development milestones for the first half of 2017, specifically, those related to the advancement of the human factors and usability studies and finalization of user requirements for the first generation SPORT Surgical System. It is further estimated that a minimum of an additional U.S. \$18 million will be required to fund development and pre-clinical animal studies during the second half of 2017.

Although an estimate of the timing and costs for the development milestones in 2017 and beyond remains highly speculative, the Company presently estimates that a total of U.S. \$70 million of additional capital (including the U.S.\$10 million and U.S.\$18 million amounts noted above), will be required to fund development work through submission of the 510(k) application to the FDA and submittal to European authorities for the CE Mark, which are projected by year-end 2018. However, given the uncertainty of, among other things, product development timelines, regulatory requirements, the timing and number of future animal and human cadaver studies that may be required and the availability of required capital to fund development and operating costs, the actual costs and development times may exceed management's current expectations.

In addition to being capital intensive, research and development activities relating to the Company's SPORT surgical robot, which is a highly complex medical device are inherently uncertain as to future success and the achievement of desired results. If delays or problems occur during the Company's ongoing research and development activities, financial and human resources may need to be diverted toward resolving such delays or problems. Further, there is material risk that the Company's research and development activities may not result in a functional, commercially viable product or one that is approved by regulatory authorities. Please see "Risk Factors".

### **Current Development Plan**

The Company's current plan is to raise sufficient financing and to continue the development and commercialization of the SPORT Surgical System at estimated incremental costs, and according to the timeline, as set forth in the table below.

The Company anticipates costs to the end of 2017 related to the commercialization and regulatory clearance of the SPORT system to be as set out in the table below.

| Development Milestones                                                                                            | Estimated Cost<br>(in U.S. \$ million) | Schedule for Milestone<br>Completion | Comments  |  |  |
|-------------------------------------------------------------------------------------------------------------------|----------------------------------------|--------------------------------------|-----------|--|--|
| Units built and ready for engineering verification<br>(Prototype is formally tested to meet previously defined sp | ecifications)                          |                                      |           |  |  |
| Build two EV units                                                                                                | -                                      | Q4 2015                              | Completed |  |  |
| Build additional EV units                                                                                         | -                                      | Q1 2016                              | Completed |  |  |
| Perform initial heuristic human factors and usability studies                                                     | -                                      | Q2 2016                              | Completed |  |  |
| Complete human factors and usability studies                                                                      |                                        |                                      |           |  |  |
| Finalize user requirements for 1st generation robotic surgical system                                             | 4.5                                    | Q1 2017                              | Completed |  |  |
| Select and confirm strategic facilities for pre- clinical studies in US and Europe                                | 0.5                                    | Q2 2017                              |           |  |  |
| Test and evaluate performance of subsystems of existing EV units                                                  | 1.8                                    | Q2 2017                              |           |  |  |
| Complete initial formative human factors studies                                                                  | 2.0                                    | Q2 2017                              |           |  |  |
| Initiate design changes based on subsystem performance<br>and human factors evaluation                            | 1.0                                    | Q2 2017                              |           |  |  |

| Development Milestones                                                                                                   | Estimated Cost       | Schedule for Milestone | Comments |
|--------------------------------------------------------------------------------------------------------------------------|----------------------|------------------------|----------|
|                                                                                                                          | (in U.S. \$ million) | Completion             |          |
| Implement design changes and retest system and subsystems                                                                | 8.7                  | Q3 2017                |          |
| Update Design History File and documentation for relevant<br>modules of Company Quality Management Systems<br>("QMS")    |                      | Q3 2017                |          |
| Complete initial requirements and architecture for<br>simulation software and training program design                    |                      | Q3 2017                |          |
| Complete and report on pre-clinical animal studies at strategic facilities in US and Europe                              | 9.2                  | Q4 2017                |          |
| Confirm FDA and CE Mark pathways in coordination with regulatory authorities                                             |                      | Q4 2017                |          |
| Complete software development, system design and update<br>Design History File for regulatory filing                     | TBD <sup>(1)</sup>   | 2018                   |          |
| Complete summative human factors evaluation                                                                              |                      |                        |          |
| Complete simulation software development and training program design                                                     |                      |                        |          |
| Complete and document pre-clinical studies for FDA submittal                                                             |                      |                        |          |
| Prepare and submit 510(k) application to FDA and prepare technical file for CE Mark and submit to European Notified Body |                      |                        |          |
| Publish white papers on pre-clinical studies                                                                             |                      |                        |          |
| Anticipated receipt of FDA 510(k) clearance and CE Mark                                                                  | TBD(1)               | 2019                   |          |
| Perform successful human surgeries at initial US and<br>European training centres                                        |                      |                        |          |
| TOTAL                                                                                                                    | TBD(1)               |                        |          |

Notes:

(1) A specific schedule for milestone completion cannot be estimated at this time as it is dependent upon receipt of additional funding.

(2) The estimated costs associated with each milestone in the table above are inclusive of estimated working capital and general administrative expenses.

Upon completion of the development of the SPORT Surgical System and following receipt of applicable regulatory clearances in North America and Europe, the Company intends to utilize a direct sales force, distribution partner(s) or a combination thereof to initiate marketing of the SPORT Surgical System to hospitals.

Due to the nature of technology research and development, there is no assurance that these objectives will be achieved, and there can be no assurance with respect to the time or resources that may be required. The Company expects that additional specific milestones could be identified as the research, development and commercialization of the SPORT Surgical System progresses, or existing milestones, budgets and the schedule for completion of each milestone may change depending on a number of factors including the results of the Company's development program, the availability of financing and the cooperation and ability of development and manufacturing firms engaged by the Company to complete work assigned to them. The total costs presented in the table above to undertake the research, development and commercialization of the Company's SPORT Surgical System as referenced above are only estimates based on current information available to the Company and cannot yet be determined with a high degree of certainty. Actual costs may be substantially higher than those estimated. Costs beyond 2017 remain to be determined.

Please also refer to the risk factors set forth starting on page 16 of the Company's Annual Information Form for the 2016 fiscal year, available on SEDAR at www.sedar.com.

#### Financings

#### Offerings During Q1 2017

On March 16, 2017 Titan completed an offering of securities pursuant to an agency agreement dated March 10, 2017 between the Company and Bloom Burton Securities Inc. ("Bloom Burton"). The Company sold 21,467,200 units under the Offering at a price of CDN\$0.35 per Unit for gross proceeds of approximately \$5,642,537 (\$5,026,936 net of closing costs including cash commission of \$394,316 paid in accordance with the terms of the agency agreement). Each Unit consisted of one Common Share of the Company and (i) one-half of one Common Share purchase warrant, each whole warrant entitling the holder thereof to acquire one Common Share of the Company at an exercise price of CDN\$0.40 and expiring March 16, 2019, and (ii) one-half of one Common Share purchase warrant, each whole warrant, each whole warrant entitling the holder thereof to acquire on Common Share of the Company at an exercise price of CDN\$0.50 and expiring March 16, 2021.

Pursuant to the agency agreement, in addition to the cash commission paid to Bloom Burton, broker warrants were issued to the Agent which entitle the holder to purchase 1,500,155 Common Shares at a price of CDN\$0.35 per share prior to expiry on March 16, 2019.

### Offerings During Q3 2016

On September 20, 2016 Titan completed an offering of securities pursuant to an agency agreement dated September 13, 2016 between the Company and Bloom Burton & Co. Limited and Echelon Wealth Partners Inc. (the "Agents"). The Company sold 17,083,333 units under the Offering at a price of CDN\$0.60 per Unit for gross proceeds of \$7,749,000 (\$6,951,987 net of closing costs including cash commission of \$528,668 paid in accordance with the terms of the agency agreement). Each unit comprised of one common share of the Company and one warrant. Each whole warrant entitles its holder to purchase one additional common share of Titan for CDN\$0.75 and will expire September 20, 2021. The warrants were valued at \$1,162,350 using a comparable warrant quoted in an active market, adjusted for differences in the terms of warrant and the balance of \$6,586,650 was allocated to common shares.

Pursuant to the agency agreement, in addition to the cash commission paid to the Agents, the Company issued 1,165,494 broker warrants to the Agents. Each broker warrant entitles the holder thereof to acquire one common share of the Company at the price of CDN\$0.60 and expires September 20, 2018.

On October 27, 2016, the Agents exercised the over-allotment option granted by the Company in connection with the September 20, 2016 offering and the Company sold an additional 2,030,000 Units at the offering price of CDN\$0.60 per Unit for additional gross proceed of \$909,846 (\$845,181 net of closing costs including commission of \$63,689 paid in accordance with the terms of the agency agreement). Each Unit comprised one common share of the Company and one warrant. Each whole warrant entitles its holder to purchase one additional common share of the Company for CDN\$0.75 and will expire September 20, 2021. The warrants were valued at \$121,313 using a comparable warrant quoted in an active market, adjusted for differences in the terms of warrants and the balance of \$788,533 was allocated to common shares.

In addition to the cash commission paid to the Agents, the Company issued 142,100 broker warrants to the Agents. Each broker warrant entitles the holder thereof to acquire one common share of the Company at the price of CDN\$0.60 and expires October 27, 2018.

### Offerings During Q1 2016

On February 12, 2016 Titan completed an offering of securities made pursuant to an agency agreement dated February 9, 2016 between the Company and Bloom Burton. The Company sold 11,670,818 units under the offering at a price of CDN\$0.90 per unit for gross proceeds of approximately \$7,592,101 (\$6,844,046 net of closing costs including cash commission of \$516,622 paid in accordance with the terms of the agency agreement). Each unit consists of one common share of the Company and one common share purchase warrant. Each whole warrant entitles the holder thereof to acquire one common share of the Company at an exercise price of CDN\$1.00 and expires February 12, 2021. The warrants were valued at \$1,518,420 using a comparable warrant quoted in an active market, adjusted for differences in the terms of warrant and the balance of \$6,073,681 was allocated to common shares.

On February 23, 2016 the over-allotment option in connection with the Company's February 12, 2016 offering of 11,670,818 units was exercised in full, and the Company sold an additional 1,746,789 units at the offering price of CDN\$0.90 per unit for gross proceeds to Titan of approximately \$1,139,937 (\$1,029,605 net of closing costs including cash commission of \$79,796 paid in accordance with the terms of the agency agreement). The warrants were valued at \$215,321 using a comparable warrant quoted in an active market, adjusted for differences in the terms of warrant and the balance of \$924,616 was allocated to common shares.

Pursuant to the agency agreement, in addition to the cash commission paid to Bloom Burton, the Company issued 916,443 broker warrants to Bloom Burton. Each broker warrant entitles the holder thereof to acquire one unit of the Company at the price of CDN\$0.90 and expires February 23, 2018.

On March 31, 2016 Titan completed an offering of securities pursuant to an agency agreement dated March 24, 2016 between the Company and Bloom Burton. The Company sold 15,054,940 units under the offering price of CDN\$1.00 per unit for gross proceeds of approximately \$11,607,359 (\$10,571,919 net of closing costs including cash commission of \$796,324 paid in accordance with the terms of the agency agreement). Each unit comprises one common share of Titan and one warrant. Each whole warrant entitles its holder to purchase one additional common share of Titan for CDN\$1.20 and will expire March 31, 2021. The warrants were valued at \$1,741,104 using a comparable warrant quoted in an active market, adjusted for differences in the terms of warrant and the balance of \$9,866,255 was allocated to common shares.

Pursuant to the agency agreement, in addition to the cash commission paid to Bloom Burton, the Company issued 1,032,845 broker warrants to Bloom Burton. Each broker warrant entitles the holder thereof to acquire one unit of the Company at the price of CDN\$1.00 and expires March 31, 2018. Each unit consist of one common share of the Company and one common share purchase warrant. Each purchase warrant entitles the holder thereof to acquire one common share of the Company at an exercise price of CDN\$1.20 and expires March 31, 2021.

On April 14, 2016 the over-allotment option to the Company's March 31, 2016 offering was exercised in full and the Company sold an additional 2,258,241 units at the offering price for additional gross proceeds of \$1,759,396 (\$1,633,407 net of closing costs including commission of \$123,158 paid in accordance with the terms of the agency agreement). The warrants were valued at \$290,300 based on the market value at the time and the balance of \$1,469,096 was allocated to common shares.

Pursuant to the agency agreement, in addition to the cash commission paid to Bloom Burton, the Company issued 158,076 broker warrants to Bloom Burton. Each broker warrant entitles the holder thereof to acquire one unit of the Company at the price of CDN\$1.00 and expires April 14, 2018. Each unit consists of one common share of the Company and one common share purchase warrant. Each purchase warrant entitles the holder thereof to acquire one common share of the Company at an exercise price of CDN\$1.20 which expire April 14, 2021.

### Longtai Medical Inc.

On October 30, 2015, the Company entered into a letter agreement (the "Letter Agreement") with Longtai Medical Inc. Under the terms of the Letter Agreement, on November 23, 2015, Longtai subscribed for and purchased US\$4,000,000 worth of Common Shares under a private placement, at a subscription price of CDN\$1.23 per Common Share. In the Letter Agreement, the Company granted to Longtai exclusive rights to negotiate with the Company for an exclusive marketing, sales and distribution agreement for the Company's SPORT Surgical System in the Asia Pacific region (the "Distributorship Agreement") for a period of 183 days commencing at closing of the private placement. Additionally, Longtai paid to the Company US\$2,000,000 as a deposit toward the Distributorship Agreement ("Distributorship Deposit"), which is required to be repaid to Longtai in the event that the Distributorship Agreement is not entered into within such 183 day period. On May 24, 2016, the Company and Longtai executed a three month exclusive rights granted to Longtai to negotiate the Distributorship Agreement and for the repayment of the Distributorship Deposit to Longtai, extending the negotiation period and the date for repayment of the Distributorship Deposit to August 19, 2016.

On August 24, 2016, the Company announced that it had had agreed to extend the exclusive rights granted to Longtai to negotiate the Distributorship Agreement from the previous three month extension to monthly progress reviews. On April 28, 2017, Titan announced that it had terminated its negotiations with Longtai Medical Inc. and it would return a US\$2.0 million deposit to Longtai.

The Company's description of its intended use of proceeds from the offerings made pursuant to its prospectus supplements dated February 9, 2016, March 24, 2016, September 13, 2016 and March 10, 2017, each pursuant to the short form base shelf prospectus of the Company dated August 18, 2015, are updated as outlined in the following table:

|                                                                                 | the of<br>pursu<br>prosp<br>suppl<br>dated<br>9, 201<br>(Inclu<br>exerc | ement<br>February | the o<br>purs<br>pros<br>supp<br>date<br>2016<br>full o<br>the | eeds from<br>offering<br>uant to the<br>pectus<br>lement<br>d March 24,<br>(Including<br>exercise of<br>allotment) | the<br>pur<br>pro<br>sup<br>Sep<br>201<br>par<br>the | ceeds from<br>offering<br>suant to the<br>spectus<br>plement dated<br>tember 13,<br>6(Including<br>tial exercise of<br>rallotment) | from<br>offe<br>purs<br>to th<br>pros<br>supj<br>date | suant<br>ne<br>spectus<br>plement<br>ed<br>rch 10, | Το | tal        |
|---------------------------------------------------------------------------------|-------------------------------------------------------------------------|-------------------|----------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|----------------------------------------------------|----|------------|
| Ongoing development<br>and commercialization<br>of the SPORT Surgical<br>System | \$                                                                      | 6,298,920         | \$                                                             | 9,764,261                                                                                                          | \$                                                   | 6,237,734                                                                                                                          | \$                                                    | 4,021,549                                          | \$ | 26,322,464 |
| General working capital requirements                                            |                                                                         | 1,574,731         |                                                                | 2,441,065                                                                                                          |                                                      | 1,559,434                                                                                                                          |                                                       | 1,005,387                                          |    | 6,580,617  |
| Total Net Proceeds                                                              | \$                                                                      | 7,873,651         | \$                                                             | 12,205,326                                                                                                         | \$                                                   | 7,797,168                                                                                                                          | \$                                                    | 5,026,936                                          | \$ | 32,903,081 |

The Company has not deviated from its plan to use the net proceeds of the offerings described in the table above towards the ongoing development and commercialization of its SPORT Surgical System and general working capital requirements.

### **Off-Balance Sheet Arrangements**

Other than for leased premises occupied by the Company and licensing agreements, both of which are discussed in note 8 of the unaudited condensed interim financial statements for the three months ended March 31, 2017 and 2016, the Company does not utilize off balance sheet arrangements.

#### **Outstanding Share Data**

The following table summarizes the outstanding share capital as of the date of this MD&A:

| Type of Securities             | Number of common shares issued or issuable<br>upon conversion |
|--------------------------------|---------------------------------------------------------------|
| Common shares                  | 188,238,646                                                   |
| Stock options(1)               | 16,225,260                                                    |
| Warrants                       | 83,254,221                                                    |
| Broker warrants <sup>(2)</sup> | 4,915,113                                                     |

#### Notes:

- (1) The Company has outstanding options enabling certain employees, directors, officers and consultants to purchase common shares. Please refer to note 5(b) of the Unaudited Condensed Interim Financial Statements for terms of such options.
- (2) Pursuant to the agency agreement in respect of the February 2016 offering, in addition to the cash commission paid to the agent for the offering, 916,443 broker warrants were issued to the agent. Each broker warrant entitles the holder thereof to acquire one unit of the Company at the price of CDN\$0.90 for a period of 24 months following the closing date. Each unit consists of one Common Share and one warrant. Each warrant entitles the holder to acquire one Common Share at an exercise price of CDN\$1.00 for a period of 60 months from the date of closing.

Pursuant to the agency agreement in respect of the March 2016 offering, in addition to the cash commission paid to the Agents, 1,190,921 broker warrants were issued to the agent. Each broker warrant entitles the holder thereof to acquire one unit of the Company at the price of CDN \$1.00 for a period of 24 months following the closing date. Each unit consists of one Common Share and one warrant. Each warrant entitles the holder to acquire one Common Share at an exercise price of CDN \$1.20 per share for a period of 60 months from the date of closing.

Pursuant to the agency agreement in respect of the September 2016 offering, in addition to the cash commission paid to the agents, 1,307,594 broker warrants were issued to the agents. Each broker warrant entitles the holder thereof to acquire one common share of the Company at the price of CDN \$0.60 for a period of 24 months following the closing date.

Pursuant to the agency agreement in respect of the March 2017 offering, in addition to the cash commission paid to the agents, 1,500,155 broker warrants were issued to the agents. Each broker warrant entitles the holder thereof to acquire one common share of the Company at the price of CDN \$0.35 for a period of 24 months following the closing date.

As of the date hereof, all broker warrants remain outstanding.

#### Accounting Policies

The accounting policies set out in the notes to the unaudited condensed interim financial statements have been applied in preparing the unaudited condensed interim financial statements for the three months ended March 31, 2017, and the comparative information presented in the unaudited condensed interim financial statements for the three months ended March 31, 2017.

The preparation of financial statements in conformity with IAS 34 requires management to make estimates and assumptions that affect the reported amount of assets and liabilities and disclosure of provisions at the date of the financial statements and the reported amount of expenses during the period. Financial statement items subject to significant judgement include, (a) the measurement of stock based compensation and (b) the fair value estimate of the initial measurement of new warrant liabilities and remeasurement of unlisted warrant liabilities. While management believes that the estimates and assumptions are reasonable, actual results may differ.

#### (a) Stock Options

The Black-Scholes model used by the Company to determine fair values of stock options and warrants was developed for use in estimating the fair value of the stock options and warrants. This model requires the input of highly subjective assumptions including future stock price volatility and expected time until exercise. Changes in the subjective input assumptions can materially affect the fair value estimate.

### (b) Warrant Liability

In accordance with IAS 32, because the exercise price of new warrants are not a fixed amount, they are denominated in a currency (Canadian dollar) other than the Company's functional currency (U.S. dollar). Accordingly, the warrants are accounted for as a derivative financial liability. The warrant liability is initially measured at fair value and subsequent changes in fair value are recorded through Net and Comprehensive Loss for the period. The accounting guidance for fair value measurements prioritizes the inputs used in measuring fair value into the following hierarchy:

Level 1 - Quoted prices (unadjusted) in active markets for identical assets or liabilities;

Level 2 – Inputs other than quoted prices included within Level 1 that are directly or indirectly observable:

Level 3 – Unobservable inputs in which little or no market activity exists, therefore requiring an entity to develop its own assumptions about the assumptions that market participants would use in pricing.

The fair value of our listed and unlisted Warrant liability is initially based on level 2 (significant observable inputs) and at March 31, 2017 is based on level 1, quoted prices (unadjusted), in an active market, for our listed warrants and level 2 for our unlisted warrants.

#### **Related Party Transactions**

During the three months ended March 31, 2017, transactions between the Company and directors, officers and other related parties were related to compensation matters in the normal course of operations and are measured at the exchange amount, which is the amount of consideration established and agreed to by the related parties.

On June 8, 2015, the Company entered into an option agreement with Platform Imaging, LLC ("Platform") whereby Platform granted the Company an option to negotiate a license agreement to have exclusive rights to practice the inventions set forth in patents and patent applications for Markerless Tracking of Robotic Surgical Tools for potential incorporation in the SPORT Surgical System and to distribute such product thereafter. Under the terms of the option agreement, the Company must pay to Platform a non-refundable option fee of \$300,000 as follows: (i) \$100,000 upon signing the option agreement; (ii) \$100,000 on January 2, 2016; and (iii) \$100,000 on October 1, 2016. In addition, the Company shall have the right at any time up to and including February 2, 2017, to exercise the option by paying a fee of \$1.3 million for the rights under the license agreement, payable upon execution of a license agreement. Prior to February 2, 2017, Titan gave notice that it would not exercise the option. A former senior officer of Titan was also a co-founder, significant shareholder, a director and a member of the senior management team of Platform, as well as the co-inventor of the developed technology.

During the period, an individual related to a former executive, provided consulting services in support of marketing efforts for the European market. Compensation of \$24,720 plus reimbursement of appropriate expenses was paid to the individual.

#### Financial Instruments

The Company's financial instruments consist of cash and cash equivalents, amounts receivable, accounts payable and accrued liabilities, warrant liability, and other liabilities and charges. The fair value of these financial instruments approximates their carrying values, unless otherwise noted, due to the short term maturities of these instruments or the discount rate applied.

#### Outlook

The Company's newly expanded management team has focused its efforts on planned, systematic execution of the development of the SPORT Surgical System, directed toward commercialization. Although the challenges associated with the successful design development and commercialization of a system as advanced as the SPORT Surgical System are numerous, management believes that with the support of its product development partners, it can succeed.

As at December 31, 2016, the Company published a revised set of milestones based on a detailed review of its progress to date and expectations going forward. During the first fiscal and calendar quarter of 2017, the Company successfully completed its first milestone, finalization of the user requirements for a first generation robotic surgical system. Further, in April 2017, the Company was awarded a new US Patent for SPORT-related technology. Based on recent progress, the Company expects to complete its second milestone, being the completion of the initial formative human factors studies, in May 2017. Management is presently focused on achieving the remaining milestones for the first half of 2017 on schedule, while proceeding with disciplined product development, verification and validation processes.

At the same time, the Company is evolving its Quality Management System in preparation for submittal of applications for regulatory clearances. As required testing is completed, the results will be incorporated into the documentation and technical files to be reviewed by the FDA for 510(k) clearance and by a European Notified Body for CE Mark approval.

During 2017 and 2018, the Company plans to pursue financing that will allow it to continue the development and commercialization of the SPORTSurgical System, as well as continue its efforts to secure its intellectual property through the patent and licensing process. The pace at which the Company can execute ongoing development continues to be substantially dependent on its ability to raise the necessary capital on a timely basis.

# Additional Information

Additional information relating to Titan, including Titan's Annual Information Form for the 2016 fiscal year, is available on SEDAR at www.sedar.com.

# FORM 52-109F2 CERTIFICATION OF INTERIM FILINGS FULL CERTIFICATE

I, David J. McNally, Chief Executive Officer of Titan Medical Inc., certify the following:

- Review: I have reviewed the interim financial report and interim MD&A (together, the "interim filings") of Titan Medical Inc. (the "issuer") for the interim period ended March 31, 2017.
- 2. No misrepresentations: Based on my knowledge, having exercised reasonable diligence, the interim filings do not contain any untrue statement of a material fact or omit to state a material fact required to be stated or that is necessary to make a statement not misleading in light of the circumstances under which it was made, with respect to the period covered by the interim filings.
- 3. *Fair presentation:* Based on my knowledge, having exercised reasonable diligence, the interim financial report together with the other financial information included in the interim filings fairly present in all material respects the financial condition, financial performance and cash flows of the issuer, as of the date of and for the periods presented in the interim filings.
- 4. **Responsibility:** The issuer's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (DC&P) and internal control over financial reporting (ICFR), as those terms are defined in National Instrument 52-109 *Certification of Disclosure in Issuers' Annual and Interim Filings*, for the issuer.
- 5. **Design:** Subject to the limitations, if any, described in paragraphs 5.2 and 5.3, the issuer's other certifying officer and I have, as at the end of the period covered by the interim filings
  - (a) designed DC&P, or caused it to be designed under our supervision, to provide reasonable assurance that
    - (i) material information relating to the issuer is made known to us by others, particularly during the period in which the interim filings are being prepared; and
    - (ii) information required to be disclosed by the issuer in its annual filings, interim filings or other reports filed or submitted by it under securities legislation is recorded, processed, summarized and reported within the time periods specified in securities legislation; and
  - (b) designed ICFR, or caused it to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with the issuer's GAAP.
- 5.1 Control framework: The control framework the issuer's other certifying officer and I

used to design the issuer's ICFR is Integrated Framework (COSO).

- 5.2 ICFR material weakness relating to design: N/A
- 5.3 Limitation on scope of design: N/A
- 6. **Reporting changes in ICFR:** The issuer has disclosed in its interim MD&A any change in the issuer's ICFR that occurred during the period beginning on January 1, 2017 and ended on March 31, 2017 that has materially affected, or is reasonably likely to materially affect, the issuer's ICFR.

Date: May 11, 2017

n 0

David J. McNally Chief Executive Officer Titan Medical Inc.

## FORM 52-109F2 CERTIFICATION OF INTERIM FILINGS FULL CERTIFICATE

I, Stephen Randall, Chief Financial Officer of Titan Medical Inc., certify the following:

- Review: I have reviewed the interim financial report and interim MD&A (together, the "interim filings") of Titan Medical Inc. (the "issuer") for the interim period ended March 31, 2017.
- 2. No misrepresentations: Based on my knowledge, having exercised reasonable diligence, the interim filings do not contain any untrue statement of a material fact or omit to state a material fact required to be stated or that is necessary to make a statement not misleading in light of the circumstances under which it was made, with respect to the period covered by the interim filings.
- 3. Fair presentation: Based on my knowledge, having exercised reasonable diligence, the interim financial report together with the other financial information included in the interim filings fairly present in all material respects the financial condition, financial performance and cash flows of the issuer, as of the date of and for the periods presented in the interim filings.
- 4. Responsibility: The issuer's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (DC&P) and internal control over financial reporting (ICFR), as those terms are defined in National Instrument 52-109 Certification of Disclosure in Issuers' Annual and Interim Filings, for the issuer.
- Design: Subject to the limitations, if any, described in paragraphs 5.2 and 5.3, the issuer's other certifying officer and I have, as at the end of the period covered by the interim filings
  - designed DC&P, or caused it to be designed under our supervision, to provide reasonable assurance that
    - material information relating to the issuer is made known to us by others, particularly during the period in which the interim filings are being prepared; and
    - (ii) information required to be disclosed by the issuer in its annual filings, interim filings or other reports filed or submitted by it under securities legislation is recorded, processed, summarized and reported within the time periods specified in securities legislation; and
  - (b) designed ICFR, or caused it to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with the issuer's GAAP.
- 5.1 Control framework: The control framework the issuer's other certifying officer and I

used to design the issuer's ICFR is Integrated Framework (COSO).

- 5.2 ICFR material weakness relating to design: N/A
- 5.3 Limitation on scope of design: N/A
- Reporting changes in ICFR: The issuer has disclosed in its interim MD&A any change in the issuer's ICFR that occurred during the period beginning on January 1, 2017 and ended on March 31, 2017 that has materially affected, or is reasonably likely to materially affect, the issuer's ICFR.

Date: May 11, 2017 landall un

Stephen D. Randall Chief Financial Officer Titan Medical Inc.



170 University Avenue • Suite 1000 Toronto, Ontario, Canada M5H 3B3 •Tel: 416.548.7522 info@titanmedicaline.com • www.titanmedicalic.com

#### Titan Medical Completes Initial Formative Human Factors Studies for SPORT Robotic Surgical System

**TORONTO** (May 17, 2017) – Titan Medical Inc. (TSX: TMD) (OTCQB: TITXF), a medical device company focused on the design and development of a robotic surgical system for application in minimally invasive surgery (MIS), announces completion of initial formative human factors studies for its SPORT single port robotic surgical system. Formative human factors studies involve the evaluation of prototypes by expert users that focus on simulated task exercises that are critical to product safety.

David McNally, President and CEO of Titan Medical, said, "The completion of initial formative human factors studies is a key development milestone, and we are pleased to have achieved it on schedule. We are grateful to the independent surgeons and nurses who participated in these studies. Initial formative human factors studies are a foundational step in the development of a safe and effective complex medical device, such as a robotic system. In addition to evaluating the ergonomics of the workstation and patient cart during simulated procedures, clinicians provided insights regarding the setup and maneuverability of the central unit, the positioning of the insertable camera and the loading of instruments. The results of the studies provide valuable perspectives on user interaction and user experience for the development of the SPORT system. This endueser feedback will be integrated with information gained from the ongoing testing and evaluation of certain subsystems, so that appropriate design enhancements can be prioritized and implemented."

Mr. McNally continued, "Based on our progress and the commitment of our employees and subcontractors, we remain on track to deliver the next of our stated milestones during the second quarter of the year. While our product development team focuses on system design improvements, other members of management are actively engaged in evaluating prospective strategic facilities for preclinical studies in the U.S. and Europe."

#### About Titan Medical Inc.

Titan Medical Inc. is focused on the design and development through to the planned commercialization of a robotic surgical system for application in MIS. Titan's SPORT Surgical System, currently under development, includes a surgeon-controlled robotic platform that features multi-articulating instruments for performing MIS procedures through a single port. The surgical system also includes a workstation that provides a surgeon with an advanced ergonomic interface to the robotic platform for controlling the instruments and provides a 3D high-definition endoscopic view inside a patient's body. The SPORT system is designed to enable surgeons to perform a broad set of general abdominal, gynecologic, urologic and colorectal procedures. For more information, visit the Company's website at <u>www.titanmedicalinc.com</u>.

## Forward-Looking Statements

This news release contains "forward-looking statements" which reflect the current expectations of management of the Company's future growth, results of operations, performance and business prospects and opportunities. Wherever possible, words such as "may", "would", "could", "will", "anticipate", "believe", "plan", "expect", "intend", "estimate", "potential for" and similar expressions have been used to identify these forward-looking statements. These statements reflect management's current beliefs with respect to future events and are based on information currently available to management. Forward-looking statements involve significant risks, uncertainties and assumptions. Many factors could cause the Company's actual results, performance or achievements to be materially different from any future results, performance or achievements that may be expressed or implied by such forward-looking statements, including, without limitation, those listed in the "Risk Factors" section of the Company's Annual Information Form dated March 31, 2017 (which may be viewed at www.sedar.com). Should one or more of these risks or uncertainties materialize, or should assumptions underlying the forward-looking statements prove incorrect, actual results, performance or achievements may vary materially from those expressed or implied by the forward-looking statements. Although the forward-looking statements contained in this news release. These factors should be considered carefully, and prospective investors should not place undue reliance on the forward-looking statements. Although the forward-looking statements contained in the news release are based upon what management currently believes to be reasonable assumptions, the Company cannot assure prospective investors that actual results, performance or achievements will be consistent with these forward-looking statements.

## CONTACTS:

LHA Kim Sutton Golodetz (212) 838-3777 kgolodetz@lhai.com or Bruce Voss (310) 691-7100 bvoss@lhai.com

## TITAN MEDICAL INC.

## 170 University Avenue, Suite 1000 Toronto, Ontario, Canada M5H 3B3

## NOTICE OF ANNUAL AND SPECIAL MEETING OF SHAREHOLDERS

NOTICE IS HEREBY GIVENthat the annual and special meeting (the "Meeting") of shareholders of Titan Medical Inc. (the "Corporation") will be held at the offices of Borden Ladner Gervais LLP, Bay Adelaide Centre, East Tower, 22 Adelaide Street West, 34 <sup>th</sup> Floor, Montreal/Ottawa Room, Toronto, ON M5H 4E3, onThursday, June 15, 2017at 1:30 p.m., Toronto time, for the following purposes:

- 1. to receive and consider the financial statements of the Corporation for the fiscal year ended December 31, 2016, together with the report of the auditors thereon;
- 2. to consider, and if deemed advisable, approve the consolidation of the outstanding common shares of the Corporation on the basis of a ratio to be determined by the board of directors of the Corporation in its sole discretion, within a range of one post-consolidation common share for every 5 to 30 outstanding pre-consolidation common shares of the Corporation;
- 3. to elect directors of the Corporation;
- 4. to reappoint as auditors BDO Canada LLP, the incumbent auditors of the Corporation, and authorize the directors to fix the remuneration of the auditors; and
- 5. to transact such other business as may properly come before the Meeting or any adjournments thereof.

A copy of the information circular and form of proxy accompany this Notice.

Only shareholders of record as of May 9, 2017, the record date (the "Record Date"), are entitled to receive notice of the Meeting

The directors have fixed 5:00 p.m. on June 13, 2017 or the second last business day before any adjournment of the Meeting as the time before which proxies to be used at the Meeting (or any adjournment thereof) must be deposited with the Corporation or with Computershare Trust Company of Canada.

DATED the 18<sup>th</sup> day of May, 2017.

## By Order of the Board

*(signed) David McNally* Chief Executive Officer Titan Medical Inc.



170 University Avenue • Suite 1000 Toronto, Ontario, Canada M5H 3B3 • Tel: 416.548.7522 info@titanmedicalinc.com • www.titanmedicalic.com

## NOTICE OF ANNUAL AND SPECIAL MEETING OF SHAREHOLDERS

# TO BE HELD ON JUNE 15, 2017

AND

## MANAGEMENT INFORMATION CIRCULAR

# DATED MAY 18, 2017

These materials are important and require your immediate attention. They require shareholders of Titan Medical Inc. (the "Corporation") to make important decisions. If you are in doubt as to how to make such decisions, please contact your financial, legal or other professional advisors. If you have any questions or require more information with regard to voting your shares of the Corporation, please contact Computershare Trust Company of Canada at (416) 263-9200.

## TITAN MEDICAL INC.

#### 170 University Avenue, Suite 1000 Toronto, Ontario, Canada M5H 3B3

## NOTICE OF ANNUAL AND SPECIAL MEETING OF SHAREHOLDERS

NOTICE IS HEREBY GIVEN that the annual and special meeting (the "Meeting") of shareholders of Titan Medical Inc. (the "Corporation") will be held at the offices of Borden Ladner Gervais LLP, Bay Adelaide Centre, East Tower, 22 Adelaide Street West, 34 <sup>th</sup> Floor, Montreal/Ottawa Room, Toronto, ON M5H 4E3, on Thursday, June 15, 2017 at 1:30 p.m., Toronto time, for the following purposes:

- 1. to receive and consider the financial statements of the Corporation for the fiscal year ended December 31, 2016, together with the report of the auditors thereon;
- 2. to consider, and if deemed advisable, approve the consolidation of the outstanding common shares of the Corporation on the basis of a ratio to be determined by the board of directors of the Corporation in its sole discretion, within a range of one post-consolidation common share for every 5 to 30 outstanding pre-consolidation common shares of the Corporation;
- 3. to elect directors of the Corporation;
- 4. to reappoint as auditors BDO Canada LLP, the incumbent auditors of the Corporation, and authorize the directors to fix the remuneration of the auditors; and
- 5. to transact such other business as may properly come before the Meeting or any adjournments thereof.

A copy of the information circular and form of proxy accompany this Notice.

Only shareholders of record as of May 9, 2017, the record date (the 'Record Date'), are entitled to receive notice of the Meeting

The directors have fixed 5:00 p.m. on June 13, 2017 or the second last business day before any adjournment of the Meeting as the time before which proxies to be used at the Meeting (or any adjournment thereof) must be deposited with the Corporation or with Computershare Trust Company of Canada.

DATED the 18<sup>th</sup> day of May, 2017.

## By Order of the Board

*(signed) David McNally* Chief Executive Officer Titan Medical Inc.



# 170 UNIVERSITY AVENUE, SUITE 1000, TORONTO, ONTARIO, CANADA M5H 3B3

# MANAGEMENT INFORMATION CIRCULAR

for the

Annual and Special Meeting of Shareholders

to be held on June 15, 2017

Dated May 18, 2017

# INFORMATION CIRCULAR

# TABLE OF CONTENTS

| 1               |
|-----------------|
| 1               |
| 1               |
|                 |
| 2               |
| 2               |
| 2               |
| 2               |
| 3               |
| 3               |
| 3               |
| 3               |
| 4               |
| 4               |
| 4               |
|                 |
| 5               |
| 5               |
| 5               |
|                 |
| 9               |
| <u>10</u>       |
| <u>10</u>       |
| 13              |
| <u>19</u><br>24 |
| 24              |
| <u>24</u>       |
| 24              |
| <u>24</u>       |
| <u>24</u>       |
| <u>24</u>       |
| <u>24</u>       |
| <u> 24</u>      |
|                 |
|                 |

## TITAN MEDICAL INC. INFORMATION CIRCULAR May 18, 2017

## INTRODUCTION

This Information Circular (the "Circular") is furnished in connection with the solicitation by the management of Titan Medical Inc. (the "Corporation") of proxies to be used at the annual and special meeting of shareholders (the "Meeting") of the Corporation to be held at the offices of Borden Ladner Gervais LLP, Bay Adelaide Centre, East Tower, 22 Adelaide Street West, 34 <sup>th</sup> Floor, Montreal/Ottawa Room, Toronto, ON M5H 4E3 at 1:30 p.m. (Toronto time) on Thursday, June 15, 2017 at the place and for the purposes set forth in the accompanying Notice of Meeting. Except where otherwise indicated, this Circular contains information as of the close of business on May 18, 2017. It is expected that the solicitation will be primarily by mail but proxies may also be solicited personally by management of the Corporation at nominal cost. The cost of any such solicitation by management will be borne by the Corporation.

The Corporation may pay the reasonable costs incurred by persons who are the registered but not beneficial owners of voting shares of the Corporation (such as brokers, dealers, other registrants under applicable securities laws, nominees and/or custodians) in sending or delivering copies of this Circular and form of proxy to the beneficial owners of such shares. The Corporation will provide, without cost to such persons, upon request to the Secretary of the Corporation, additional copies of the foregoing documents required for this purpose.

## FORWARD-LOOKING STATEMENTS

This Circular contains certain forward-looking statements with respect to the Corporation based on assumptions that management of the Corporation considered reasonable at the time they were prepared. These forward-looking statements, by their nature, necessarily involve risks and uncertainties that could cause actual results to differ materially from those contemplated by the forward-looking statements.

## INFORMATION CONTAINED IN THIS CIRCULAR

No person has been authorized to give information or to make any representations in connection with the matters to be considered at the Meeting other than those contained in this Circular and, if given or made, any such information or representations should not be relied upon in making a decision as to how to vote on the resolutions or be considered to have been authorized by the Corporation or the Board of Directors (the "Board" or "Board of Directors") of the Corporation.

This Circular does not constitute an offer to buy, or a solicitation of an offer to sell, any securities. This Circular also does not constitute the solicitation of a proxy by any person in any jurisdiction in which such a solicitation is not authorized or in which the person making such a solicitation is not qualified to do so or to any person to whom it is unlawful to make such a solicitation.

Shareholders should not construe the contents of this Circular as legal, tax or financial advice and should consult with their own professional advisors as to the relevant legal, tax, financial or other matters in connection with the Meeting.

## GENERAL PROXY MATTERS

## APPOINTMENT, TIME FOR DEPOSIT AND REVOCABILITY OF PROXY

Shareholders of the Corporation are either registered or non-registered. Registered shareholders typically hold shares of the Corporation in their own names because they have requested that their shares be registered in their names on the records of the Corporation rather than holding such shares through an intermediary (intermediaries include, among others, banks, trust companies, securities dealers or brokers and trustees or administrators of self-administered RRSP's, RRIF's, RESP's and similar plans). Most shareholders are non-registered because their shares are registered in the name of either (a) an intermediary with whom the non-registered shareholder deals in respect of their shares, or (b) a clearing agency (such as The Canadian Depository for Securities Limited) of which the intermediary is a participant.

Only registered shareholders or duly appointed proxyholders will be permitted to vote at the Meeting. Non-registered shareholders may vote through a proxy or attend the Meeting to vote their own shares only if, before the Meeting, they communicate instructions to the intermediary or clearing agency that holds their shares. Instructions for voting through a proxy, appointing a proxyholder and attending the Meeting to vote are set out in this Circular.

A shareholder may receive multiple packages of Meeting materials if the shareholder holds shares of the Corporation through more than one intermediary or if the shareholder is both a registered shareholder and a non-registered shareholder for different shareholdings. Any such shareholder should repeat the steps to vote through a proxy, appoint a proxyholder or attend the Meeting, if desired, separately for each shareholding to ensure that all the shares from the various shareholders are represented and voted at the meeting.

In accordance with National Instrument 54-101 Communication with Beneficial Owners of Securities of a Reporting Issuer, (i) the Corporation has elected to send the meeting materials indirectly to beneficial owners, and (ii) the Corporation will pay for intermediaries to forward the meeting materials to objecting beneficial owners.

## VOTING BY PROXY

Shareholders who are unable to be present at the Meeting may vote through the use of proxies. Shareholders should convey their voting instructions using one of the two voting methods available: (1) use of the form of proxy or voting instruction form to be returned by mail, delivery or facsimile, or (2) use of the Internet voting procedure. By conveying voting instructions in one of the two ways, shareholders can participate in the Meeting through the person or persons named on the voting instruction form or form of proxy.

To convey voting instructions through any of the two methods available, a shareholder must locate the voting instruction form or form of proxy, one of which is included with the Circular in the package of Meeting materials sent to all shareholders. The voting instruction form is a white, computer scanable document with red squares marked "X" (the "voting instruction form") and is sent to most non-registered shareholders. The form of proxy is a form headed "Form of Proxy" (the form of proxy") and it is sent to all registered shareholders.

#### MAIL

A shareholder who elects to use the paper voting procedure should complete a voting instruction form or a form of proxy. If the form of proxy is already signed, do not sign it again. Complete the remainder of the voting instruction form or form of proxy. Ensure that you date and sign the form at the bottom. Completed voting instruction forms should be returned to the relevant intermediary in the envelope provided and should be received by the cut-off date shown on the voting instruction form. Completed forms of proxy should be returned in the envelope provided to the Corporation's transfer agent and registrar, Computershare Trust Company of Canada ("**Computershare**"), 100 University Avenue, 11<sup>th</sup> Floor, South Tower, Toronto, Ontario, M5J 2Y1 or by hand to: 8th Floor, 100 University Avenue, Toronto, Ontario M5J 2Y1 no later than 5:00 p.m. (Toronto time) on June 13, 2017 (or the second last business day preceding any adjournment of the Meeting).

## FAX

A shareholder who elects to use the facsimile voting procedure should complete a voting instruction form or a form of proxy. If the form of proxy is already signed, do not sign it again. Complete the remainder of the voting instruction form or form of proxy. Ensure that you date and sign the form at the bottom. Completed voting instruction forms should be faxed to the relevant intermediary at the number provided and should be received by the cut-off date shown on the voting instruction form. Completed forms of proxy should be returned by fax to Computershare at (416) 263-9261 no later than 5:00 p.m. (Toronto time) on June 13, 2017 (or the second last business day preceding any adjournment of the Meeting).

## INTERNET

Shareholders may convey their voting instructions through the Internet. The relevant website address is set out on the voting instruction form and form of proxy. Follow the instructions given through the Internet to cast your vote. When instructed to enter your Web Voting ID Number, refer to your voting instruction form or your form of proxy. Votes conveyed by the Internet must be received no later than the cut-off time given on the voting instruction form or the form of proxy.

#### APPOINTING A PROXYHOLDER

Shareholders unable to attend the Meeting in person may participate and vote at the Meeting through a proxyholder. The persons named on the enclosed form of proxy as proxyholders to represent shareholders at the Meeting, being David McNally and Martin Bernholtz, are directors and/or officers of the Corporation. A shareholder has the right to appoint a person or company instead of those named above to represent such shareholder at the Meeting. A non-registered shareholder who would like to attend the Meeting to vote must arrange with the intermediary to have himself or herself appointed as the proxyholder. To appoint a person or company instead of David McNally or Martin Bernholtz as proxyholder, strike out the names on the voting instruction form or form of proxy and write the name of the person you would like to appoint as your proxyholder in the blank space provided. That person need not be a shareholder of the Corporation.

Non-registered shareholders appointing a proxyholder using a voting instruction form should fill in the rest of the form indicating a vote "for", "against" or "withhold", as the case may be, for each of the proposals listed, sign and date the form and return it to the relevant intermediary or clearing agency in the envelope provided or by facsimile by the cut-off time given on the form. Proxyholders named on a signed form of proxy will be entitled to vote at the Meeting upon presentation of the form of proxy. No person will be entitled to vote at the Meeting by presenting a voting instruction form.

Alternatively, any shareholder may use the Internet to appoint a proxyholder. To use this option, access the website address printed on the voting instruction form of proxy and follow the instructions set out on the website. Refer to the control number or holder account number and proxy access number printed on the voting instruction form or form of form of proxy when required to enter these numbers.

## **REVOCATION OF VOTING INSTRUCTIONS OR PROXIES**

Voting instructions submitted by mail, facsimile or through the Internet using a voting instruction form will be revoked if the relevant intermediary receives new voting instructions before the close of business on June 13, 2017 (or the second last business day before any adjournment of the Meeting).

Proxies submitted by mail, facsimile or through the Internet using a form of proxy may be revoked by submitting a new proxy to Computershare before 5:00 p.m. (Toronto time) on June 13, 2017 or the second last business day before any adjournment of the Meeting. Alternatively, a shareholder who wishes to revoke a proxy may do so by depositing an instrument in writing to such effect addressed to the attention of the Corporation's Chief Financial Officer and executed by the shareholder or by the shareholder's attorney authorized in writing. Such an instrument must be deposited at the registered office of the Corporation, located at 170 University Avenue, Suite 1000, Toronto, Ontario, M5H 3B3, before the close of business on June 13, 2017, or the second last business day before any adjournment of the Meeting. On the day of the Meeting or any adjournment thereof, a shareholder may revoke a proxy by depositing an instrument in writing to such effect with the chair of the Meeting; however, it will not be effective with respect to any matter on which a vote has already been cast.

In addition, a proxy may be revoked by any other manner permitted by law.

#### VOTING OF PROXIES

The persons named in the enclosed form of proxy will vote, or withhold from voting, the shares in respect of which they are appointed in accordance with the direction of the shareholders appointing them. In the absence of such direction, such shares will be voted for the election of directors and for the appointment and remuneration of auditors as stated under the relevant headings in this Circular. The enclosed form of proxy confers discretionary authority upon the persons named therein to exercise their judgement and to vote with respect to amendments or variations to matters identified in the Notice of Meeting and with respect to other matters which may properly come before the Meeting. At the date hereof, the management of the Corporation knows of no such amendments or variations or of any other matters to come before the Meeting other than the matters referred to in the Notice of Meeting.

## VOTING SHARES AND PRINCIPAL HOLDERS THEREOF

On May 18, 2017, the Corporation had outstanding 188,238,646 common shares, each carrying the right to one vote per share. Shareholders registered on the books of the Corporation (or their respective proxies) at the close of business on May 9, 2017 (the "**Record Date**") are entitled to vote at the Meeting, except to the extent that a registered shareholder transfers any of such shareholder's shares after May 9, 2017, and the transferee of such shares produces properly endorsed share certificates or otherwise establishes that such shareholder owns such shares and demands, not later than 10 days before the Meeting, that such shareholder's name be included in the list of shareholders entitled to vote at the Meeting.

As at May 9, 2017, to the knowledge of the directors and senior officers of the Corporation, no person or company beneficially owns, directly or indirectly, or exercises control or direction over greater than 10% of the common shares of the Corporation.

#### CURRENCY

All amounts are in U.S. dollars other than amounts based on share price values which are in Canadian dollars.

## **BUSINESS OF THE MEETING**

## FINANCIAL STATEMENTS

The directors will place before the Meeting the financial statements for the year ended December 31, 2016 together with the auditors' report thereon. The financial statements will have already been mailed to shareholders that have requested them and are also available on the Canadian System for Electronic Document Analysis and Retrieval ("SEDAR") website at *www.sedar.com* and on the Corporation's website at *www.titanmedicalinc.com*. No vote by shareholders with respect to the financial statements is required or proposed to be taken.

## SHARE CONSOLIDATION

At the Meeting, shareholders will be asked to consider, and if deemed advisable, approve, the special resolution authorizing an amendment to the Corporation's articles to consolidate the issued and outstanding common shares (the "Share Consolidation Resolution"). The Board of Directors believes that, in anticipation of a listing to a US stock exchange, it is in the best interests of the Corporation to consolidate the issued and outstanding common shares (the "Common Shares") of the Corporation based on a ratio of one post-consolidation common share for each 5 to 30 outstanding pre-consolidation Common Shares (the "Share Consolidation"), with the precise ratio to be determined by the Board of Directors in its sole discretion. If the Share Consolidation Resolution is approved, the Share Consolidation would only be implemented, if at all, upon a determination by the Board of Directors that it is in the best interests of the Corporation and its Shareholders, at that time. The Board of Directors is election of the specific ratio will be based primarily on the price of the Common Shares at the given time and expected stability of that price following the Share Consolidation.

If the proposed Share Consolidation is implemented, the number of Common Shares issued and outstanding will be reduced from approximately 188,238,646 Common Shares (as of May 18, 2017) to between approximately 6,274,622 (in the event of a 30 to 1 consolidation) and 37,647,729 (in the event of a 5 to 1 consolidation) Common Shares, depending on the ratio selected by the Corporation's Board of Directors.

The effect of the proposed Share Consolidation on the Corporation's outstanding securities exchangeable or exercisable for Common Shares is set out in the table below.

| Type of Security                                                                             | Pre-Share Consolidation | Post-Share Consolidation                |                                          |  |
|----------------------------------------------------------------------------------------------|-------------------------|-----------------------------------------|------------------------------------------|--|
|                                                                                              | (#)                     | Based on 5:1 Share<br>Consolidation (#) | Based on 30:1 Share<br>Consolidation (#) |  |
| Warrants                                                                                     |                         |                                         |                                          |  |
| Warrants issued March 13,<br>2013 and expiring March 13, 2018                                | 5,260,705               | 1,052,141                               | 175,357                                  |  |
| Warrants issued November 16, 2015 and expiring November 16, 2020                             | 7,012,195               | 1,402,439                               | 233,740                                  |  |
| Warrants issued February 12,<br>2016 and February 23, 2016 and<br>expiring February 12, 2021 | 13,347,607              | 2,669,522                               | 444,920                                  |  |

| Type of Security                                                                              | Pre-Share Consolidation | Post-Share Consolidation                |                                          |  |  |
|-----------------------------------------------------------------------------------------------|-------------------------|-----------------------------------------|------------------------------------------|--|--|
|                                                                                               | (#)                     | Based on 5:1 Share<br>Consolidation (#) | Based on 30:1 Share<br>Consolidation (#) |  |  |
| Warrants issued March 31,<br>2016 and April 14, 2016 and<br>expiring March 31, 2021           | 17,313,181              | 3,462,636                               | 577,106                                  |  |  |
| Warrants issued September 20,<br>2016 and October 27, 2016 and<br>expiring September 20, 2021 | 19,113,333              | 3,822,667                               | 637,111                                  |  |  |
| Warrants issued March 16,<br>2017 and expiring March 16, 2019                                 | 10,473,600              | 2,094,720                               | 349,120                                  |  |  |
| Warrants issued March 16,<br>2017 and expiring March 16, 2021                                 | 10,733,600              | 2,146,720                               | 357,787                                  |  |  |
| Broker Compensation Warrants                                                                  | 7,022,477               | 1,404,495                               | 234,083                                  |  |  |

No fractional Common Shares will be issued in connection with the Share Consolidation and, in the event that a Shareholder would otherwise be entitled to receive a fractional common share, upon such Share Consolidation, the number of Common Shares to be received by such Shareholder will be rounded up or down to the nearest whole number.

Upon the Share Consolidation becoming effective, the number of Common Shares issuable upon the due exercise of outstanding Warrants of the Corporation and the exercise price in respect thereof shall be adjusted in accordance with the terms of such Warrants set forth in the certificate and any warrant indenture governing the Warrants. No further action by the holders of Warrants shall be required in order to give effect to these adjustments.

The Share Consolidation is subject to regulatory approval, including approval of the Toronto Stock Exchange (**'TSX'**), at the time of the proposed consolidation. As a condition to the approval of a consolidation of shares listed for trading on the TSX, the TSX requires, among other things, that the Corporation must meet, post-consolidation, the continued listing requirements contained in Part VII of the TSX Company Manual. Specifically, the Corporation's securities may be delisted if (a) the market value of listed issued securities is less than \$3,000,000 over any period of 30 consecutive trading days; or (b) the market value of the Corporation's freely-tradable, publicly held securities is less than 500,000; or (d) the number of public security holders, each holding a board lot or more, is less than 150.

If the Share Consolidation Resolution is approved, the Board of Directors will determine when and if the articles of amendment giving effect to the Share Consolidation would be filed, and shall determine the share consolidation ratio. No further action on the part of shareholders would be required in order for the Board of Directors to implement the Share Consolidation.

Notwithstanding approval of the proposed Share Consolidation by Shareholders, the Board of Directors, in its sole discretion, may delay implementation of the Share Consolidation or revoke the Share Consolidation Resolution and abandon the Share Consolidation without further approval or action by or prior notice to Shareholders.

# If the Board of Directors does not implement the Share Consolidation prior to the next annual meeting of shareholders, the authority granted by the special resolution to implement the Share Consolidation on these terms would lapse and be of no further force or effect.

#### **Reasons for the Share Consolidation**

The Board of Directors believes that it is in the best interests of the Corporation and the Corporation's shareholders to reduce the number of outstanding Common Shares by way of the Share Consolidation, because it may be required as a condition to listing the Corporation's securities on a recognized United States based stock exchange (a "US **Exchange**") and also position the Common Shares in the best possible manner to attract investor interest from the United States, Canada and other jurisdictions.

## Listing on US Exchange

The Corporation plans to explore its eligibility for a listing of the Common Shares on a foreign stock exchange, and may be required to effect a consolidation of the Common Shares to achieve the minimum share trading price required to satisfy the listing requirements of a foreign exchange. The trading price of the Common Shares on the TSX is currently below the minimum price required by certain foreign stock exchanges and the proposed Share Consolidation, if implemented, may allow the Corporation to achieve such minimum listing price.

The Board of Directors of the Corporation believes that shareholder approval of a range of potential consolidation ratios (rather than a single consolidation ratio) provides the Board of Directors with flexibility to achieve the desired results of the Share Consolidation, being an increase in the trading price of the Common Shares so as to meet the minimum listing price of certain foreign stock exchanges.

There can be no assurances whatsoever that any increase in the market price per common share will result from the proposed Share Consolidation and there is no assurance whatsoever that the Corporation will submit an application for listing on any foreign stock exchange, or if an application is made, that the Corporation will be successful in achieving such a listing if the proposed Share Consolidation is implemented.

## Share Certificates

If the proposed Share Consolidation is approved by the shareholders and all regulatory requirements are complied with, including the Corporation obtaining approval of the TSX, and implemented by the Board of Directors no later than one year from the date of approval of the Share Consolidation by the shareholders, following the announcement by the Corporation of the effective date of the Share Consolidation, registered Shareholders will be sent a transmittal letter by the Corporation's transfer agent, Computershare Trust Company of Canada, containing instructions on how to exchange their share certificates representing pre-consolidation Common Shares for new share certificates representing post-consolidation Common Shares. Non-registered shareholders holding their Common Shares through a bank, broker or other nominee should note that such banks, brokers or other nominees may have different procedures for processing the Share Consolidation than those that will be put in place by the Corporation for the registered shareholders. If you hold your Common Shares with such a bank, broker or other nominee and if you have any questions in this regard, you are encouraged to contact your nominee.

#### RISK FACTORS ASSOCIATED WITH THE SHARE CONSOLIDATION

#### Decline in Market Capitalization

There are numerous factors and contingencies that could affect the prices of pre-consolidation Common Shares and the post-consolidation Common Shares, including the Corporation's reported financial results in future periods, and general economic, geopolitical, stock market and industry conditions. Accordingly, the market price of the post-consolidation Common Shares may not be sustainable at the direct arithmetic result of the Share Consolidation, and may be lower. If the market price of the post-consolidation Common Shares is lower than it was before the Share Consolidation on an arithmetic equivalent basis, the Corporation's total market capitalization (the aggregate value of all Common Shares at the then market price) after the Share Consolidation may be lower than before the Share Consolidation.

### Potential for Adverse Effect on the Liquidity of the Common Shares

If the Share Consolidation is implemented and the market price of the post-consolidation Common Shares declines, the percentage decline may be greater than would occur in the absence of the Share Consolidation. The market price of the post-consolidation Common Shares will, however, also be based on the Corporation's performance and other factors, which are unrelated to the number of Common Shares outstanding. Furthermore, the liquidity of the post-consolidation Common Shares could be adversely affected by the reduced number of consolidated Common Shares that would be outstanding after the Share Consolidation.

#### No Fractional Shares to be Issued

No fractional consolidated Common Shares will be issued in connection with the Share Consolidation and, in the event that a Shareholder would otherwise be entitled to receive a fractional consolidated share upon the Share Consolidation, such fraction will be rounded up or down to the nearest whole number.

## Effects of the Share Consolidation on the Common Shares

The Consolidation Ratio will be the same for all Common Shares. Except for any variances attributable to the rounding up and down of fractional shares, the change in the number of issued and outstanding Common Shares that will result from the Share Consolidation will cause no change in the capital attributable to the Common Shares and will not materially affect any shareholder's percentage ownership in the Corporation, even though such ownership will be represented by a smaller number of consolidated Common Shares.

The Share Consolidation will not materially affect any shareholder's proportionate voting rights. Each consolidated common share outstanding after the Share Consolidation will have the same rights and privileges as the existing Common Shares.

The implementation of the Share Consolidation would not affect the total shareholders' equity of the Corporation or any components of Shareholders' equity as reflected on the Corporation's financial statements except to change the number of issued and outstanding Common Shares to reflect the Share Consolidation.

#### Procedure for Implementing the Share Consolidation

If the Share Consolidation Resolution is approved by the shareholders and the Board of Directors decides to implement the Share Consolidation, the Corporation will file articles of amendment with the Director under the *Business Corporations Act* (Ontario) ("**OBCA**") in the form prescribed by the OBCA to amend the Corporation's articles. The Share Consolidation will become effective as specified in the articles of amendment and the certificate of amendment issued by the Director under the OBCA.

#### No Dissent Rights

Under the OBCA, shareholders do not have dissent and appraisal rights with respect to the proposed Share Consolidation.

#### Tax Considerations

SHAREHOLDERS SHOULD CONSULT THEIR TAX ADVISORS REGARDING THE TAX CONSEQUENCES OF THE SHARE CONSOLIDATION TO THEM, INCLUDING THE EFFECTS OF ANY CANADIAN OR U.S. FEDERAL, STATE AND LOCAL, FOREIGN AND OTHER TAX LAWS.

#### Share Consolidation Resolution

Shareholders will be asked to consider and, if thought advisable, to authorize and approve the Share Consolidation Resolution. Pursuant to the provisions of the OBCA, in order to be effective, the Share Consolidation Resolution must be approved by 66 2/3% of the votes cast in respect thereof by shareholders present in person or by proxy at the Meeting.

The following is the text of the Share Consolidation Resolution which will be put forward for approval by the Shareholders at the Meeting:

## "BE IT RESOLVED AS A SPECIAL RESOLUTION THAT:

- (a) Pursuant to section 168(1)(h) of the Business Corporations Act (Ontario) (the "OBCA"), the Articles of Titan Medical Inc. (the "Corporation") be amended to consolidate all of the issued and outstanding common shares of the Corporation (the "Common Shares") on the basis of a ratio of one (1) post-consolidation Common Share for a number of outstanding pre-consolidation Common Shares between 5 and 30, with such ratio to be determined by the Board of Directors in its sole discretion. Any resulting fractional Common Shares shall be either rounded up or down to the nearest whole Common Share;
- (b) The Board of Directors of the Corporation be and it is hereby authorized to revoke, without further approval of the Shareholders, this special resolution at any time prior to the completion thereof, notwithstanding the approval by the Shareholders of same, if determined, in the Board of Directors' sole discretion to be in the best interest of the Corporation; and
- (c) Any director or officer of the Corporation be and is hereby authorized to do all such further acts and things and execute all such documents and instruments as may be necessary or desirable to give effect to the matters contemplated by this special resolution, including but not limited to, the filing of articles of amendment under the OBCA."

Unless otherwise directed, the persons named in the enclosed form of proxy intend to vote at the Meeting IN FAVOUR of the Share Consolidation Resolution.

#### **Recommendation of the Board**

The Board of Directors believes that the proposed Share Consolidation of the Common Shares is in the best interests of the Corporation and its shareholders and unanimously recommends that shareholders vote IN FAVOUR of the Share Consolidation Resolution.

#### **ELECTION OF DIRECTORS**

The Corporation currently has four (4) directors, each of whom is being nominated for re-election at the Meeting. All directors are elected annually.**Unless such authority is** withheld, the person named in the enclosed form of proxy intends to vote for the election of the nominees whose names are set forth below. Management does not contemplate that any of the nominees will be unable to serve as a director but, if that should occur for any reason prior to the Meeting, the persons named in the enclosed form of proxy reserve the right to vote for another nominee in their discretion. Each director elected will hold office until the next annual meeting or until his office is earlier vacated in accordance with the by-law of the Corporation.

#### MAJORITY VOTING POLICY

The board of directors has adopted a majority voting policy to the effect that if a director nominee in an uncontested election receives a greater number of votes "withheld" than votes "for", he or she must immediately tender his or her resignation to the board of directors. The Corporate Governance and Nominating Committee will consider the director's offer to resign and make a recommendation to the board of directors whether to accept it or not. The board of directors shall accept the resignation unless there are exceptional circumstances, and the resignation will be effective when accepted by the board of directors. The board of directors shall make its final determination within 90 days after the date of the shareholder meeting and promptly announce that decision (including, if applicable, the exceptional circumstances for rejecting the resignation) in a news release. A director who tenders his or her resignation is considered. The majority voting policy does not apply to the election of directors at contested meetings; that is, where the number of directors.

## NOMINEES FOR ELECTION AS DIRECTORS

The Board of Directors has determined that the number of directors to be elected at the meeting is six. The following table and the notes thereto set out the names of all the persons proposed to be nominated for election as directors, their principal occupation, the date on which each became a director of the Corporation and the number of Common Shares of the Corporation beneficially owned, directly or indirectly, or over which control or direction is exercised by each of them as at May 18, 2017 as well as information concerning committee membership. Each director elected will hold office until the next annual general meeting of the Company or until his successor is elected or appointed or his office is otherwise vacated.

| Name and Place of Residence                                                    | Principal Occupation                                                                                                                            | Director Since | Number of Common Shares<br>Beneficially Owned, or Controlled<br>or Directed, Directly or Indirectly (1) |
|--------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|----------------|---------------------------------------------------------------------------------------------------------|
| <b>Martin C. Bernholtz</b> <sup>(2)(3)(5)</sup><br>Thornhill, Ontario, Canada  | Vice President, Finance of Kerbel Group Inc.<br>(construction and land development)                                                             | 2008           | 1,571,500                                                                                               |
| <b>John E. Barker</b> <sup>(2)(3)(5)</sup><br>Burlington, Ontario, Canada      | Director and Chair of the Audit Committee of<br>Ecosynthetix (renewable chemicals)                                                              | 2009           | 250,632                                                                                                 |
| <b>David J. McNally</b><br>Salt Lake City, UT, USA                             | President and Chief Executive Officer of the Corporation                                                                                        | 2017           | 20,000                                                                                                  |
| <b>Stephen Randall</b><br>Toronto, Ontario, Canada                             | Chief Financial Officer and Corporate Secretary of the Corporation                                                                              | NA             | 197,307                                                                                                 |
| <b>John E. Schellhorn</b> <sup>(4)</sup><br>Portsmouth, NH, USA                | Corporate Officer (medical)                                                                                                                     | NA             | 0                                                                                                       |
| <b>Dr. Bruce Giles Wolff</b> <sup>(2)(3)(5)</sup><br>Rochester, Minnesota, USA | Professor of Surgery, Mayo Clinic College of<br>Medicine and Emeritus Chair of the Division of<br>Colon & Rectal Surgery, Mayo Clinic (medical) | 2014           | 17,552                                                                                                  |

Notes:

(1) The information as to Common Shares beneficially owned, or controlled or directed, directly or indirectly, not being within the knowledge of the Corporation, has been furnished by the respective nominees individually.

(2) Member of the Audit Committee of the Corporation.

(3) Member of the Compensation Committee of the Corporation.

(4) Subject to acceptance by the TSX.

(5) Member of the Governance Committee of the Corporation.

#### **Biographies of Director Nominees**

The following are brief biographies of each of the nominees for director:

#### Martin C. Bernholtz – Chairman of the Board and Director

Mr. Martin Bernholtz, BBA, CPA, CA is the Chief Financial Officer of Kerbel Group Inc. (since 1987), an integrated Construction and Land Development Company. In this capacity he is responsible for strategy, finance, accounting, taxation and personnel. Mr. Bernholtz has considerable business experience in real estate, finance and public markets. Mr. Bernholtz graduated with a Bachelor degree in Business Administration from York University in 1981 and became a Chartered Accountant in 1984. While in practice at Laventhol & Horwath and at BDO Dunwoody, he practiced in the Business Valuation, Litigation Support and Strategy areas.

#### John E. Barker – Director

Mr. Barker is a finance professional with general management experience. Mr. Barker previously acted as the Senior Vice President of Finance, Chief Financial Officer and in other senior executive positions at Zenon Environmental Inc., a Toronto Stock Exchange listed company, from 2000 to 2006. He was responsible for managing the finance and information technology of over 35 subsidiary companies in 25 different countries. During his career, Mr. Barker has held senior positions in finance and operations as well as overseeing human resources, information technology and procurement. Mr. Barker currently sits as a director, and Chair of the Audit Committee of Ecosynthetix Inc., a TSX listed company. Mr. Barker is a Fellow of the Chartered Professional Accountants of Canada and holds the FCMA designation.

#### David J. McNally - President and Chief Executive Officer, Director

Mr. McNally is the President and Chief Executive Officer of the Corporation. Mr. McNally joined Titan after serving as the founder, President, CEO and Chairman of the Board of Domain Surgical Inc., founded in 2009 and based in Salt Lake City, Utah. Mr. McNally brings substantial experience in areas of extraordinary leadership skills with all facets of building innovative medical device companies including clinically-focused product design and development, capital formation, regulatory clearance, and commercialization. Mr. McNally earned an MBA from the University of Utah, holds a Bachelor of Science degree in Mechanical Engineering from Lafayette College, Easton, PA and is the co-inventor of more than 30 U.S. and international patents associated with ferromagnetic surgical devices and systems, electromagnetic and ultrasonic sensors, and medical fluid delivery systems.

#### Stephen Randall - Chief Financial Officer and Corporate Secretary

Mr. Randall is the Chief Financial Officer and Corporate Secretary of the Corporation. Mr. Randall joined Titan in March 2010. Prior to that he was an independent consultant/contract CFO for seven years and prior to that he was Senior Vice President and Chief Financial Officer of Expertech Network Installation Inc., a subsidiary of Bell Canada. Mr. Randall provides a wealth of experience, as a senior financial executive, obtained from both private and public company experience. Mr. Randall is a CPA, CGA with a BA from the University of Western Ontario and a Bachelor of Commerce degree from the University of Windsor.

#### John E. Schellhorn - Director

Mr. Schellhorn is a 32-year veteran of the medical technology industry, where he has held senior management roles in both the US and in Asia/Pacific. From 2012 to 2016, he was President and CEO of Monteris Medical Inc., a Canadian neurosurgery company which employed the world's first MRI compatible robot. From 2010 to 2012 he was Chief Commercialization Officer of BÂRRX Medical, Inc. His other assignments have included CEO of Softscope Medical Technologies and V.P./GM International, ACMI, Inc., and various management positions within Boston Scientific, including Director of Sales and Marketing, Asia/Pacific; General Manager, Australia; and Vice President of Sales for the Microvasive Urology division. He earned a B.A, Summa Cum Laude, from C.W. Post College, Long Island University, Greenvale, N.Y. Prior to his commercial career, he served seven years as a U.S. Marine Corps officer and helicopter pilot.

#### Bruce Giles Wolff - Director

Dr. Bruce Giles Wolff, M.D., is a Professor of Surgery at Mayo Clinic College of Medicine and Emeritus Chair of the Division of Colon & Rectal Surgery at Mayo Clinic in Rochester, Minnesota. Dr. Wolff has been a member of the Mayo Clinic's Surgical Administrative Committee since 2006. Dr. Wolff is continuing his association with Mayo Clinic, on a reduced surgical schedule, and is the Executive Director for the American Board of Colon and Rectal Surgery. Dr. Wolff has written extensively on colon and rectal surgery issues in over 300 articles for publications such as The American Journal of Surgery, the Canadian Journal of Surgery, the World Journal of Surgery, Mayo Clinic Proceedings, the America Surgeon, the Journal of Gastrointestinal Surgery, Diseases of the Colon & Rectum, Annals of Surgery and the British Journal of Surgery. Dr. Wolff received his M.D. from Duke University School of Medicine and interned and completed his residency at the New York Hospital Cornell Medical Centre. He received a fellowship from the Mayo Clinic in 1981-82 and since then he has taught and practiced medicine at the Mayo Clinic.

#### Corporate Cease Trade Orders, Bankruptcies, Penalties or Sanctions

To the knowledge of the Corporation, none of the persons nominated for election as directors at the Meeting: (a) is, as at the date of this Circular, or has been, within the 10 years before the date of this Circular, a director, chief executive officer or chief financial officer of any company that: (i) was subject to a cease trade order, an order similar to a cease trade order or an order that denied the relevant company access to any exemption under securities legislation, that was in effect for a period of more than 30 consecutive days (an "**Order**") that was issued while the person was acting in the capacity as director, chief executive officer or chief financial officer and which resulted from an event that occurred while that person was acting in the capacity as director, chief executive officer or chief financial officer; (b) is, as at the date of this Circular, or has been within 10 years before the date of this Circular, a director or executive officer or chief financial officer; (b) is, as at the date of this Circular, or has been within 10 years before the date of this Circular, a director or executive officer or any company that, while that person was acting in that capacity, or within a year of that person ceasing to act in that capacity, became bankrupt, made a proposal under any legislation relating to bankrupt or insolvency or was subject to or instituted any proceedings, arrangement or compromise with creditors or had a receiver, receiver manager or trustee appointed to hold its assets; or (c) has, within the 10 years before the date of this Circular, become bankrupt, made a proposal under any legislation relating to bankrupt, or become subject to or instituted any proceedings, arrangement or compromise with creditors, or had a receiver, receiver manager or trustee appointed to hold the assets of the person.

To the knowledge of the Corporation, none of the persons nominated for election as directors at the Meeting, nor any personal holding company thereof owned or controlled by them: (i) has been subject to any penalties or sanctions imposed by a court relating to securities legislation or by a securities regulatory authority or has entered into a settlement agreement with a securities regulatory authority; or (ii) has been subject to any other penalties or sanctions imposed by a court or regulatory body that would likely be considered important to a reasonable investor in making an investment decision.

## Interest of Management and Others in Material Transactions

No proposed director of the Corporation or informed person, or any associate or affiliate of a proposed director of the Corporation or informed person has any material interest, direct or indirect, in any transaction in which the Corporation has participated since the commencement of the Corporation's most recently completed financial year, or in any proposed transaction which has materially affected or will materially affect the Corporation.

## STATEMENT OF EXECUTIVE COMPENSATION

#### Named Executive Officers

The Corporation had five Named Executive Officers in 2016, being:

- (1) John T. Hargrove, Chair and Chief Executive Officer
- (2) John E. Barker, Interim Chief Executive Officer
- (3) Reiza Rayman, President
- (4) Stephen Randall, Chief Financial Officer and Secretary
- (5) Dennis Fowler, Executive Vice President, Clinical and Regulatory Affairs
- (6) James Shore, Director, Quality Assurance/Regulatory Affairs

## (collectively, the "Named Executive Officers" or "NEO").

#### **Compensation Discussion and Analysis**

The Board of Directors is responsible for evaluating compensation for Named Executive Officers including the Chief Executive Officer, the President, the Chief Financial Officer, the Executive Vice President, Clinical and Regulatory Affairs and the Director, Strategic Development & IP, and reviewing their salaries and any bonuses on an annual basis. The Chief Executive Officer and the President are responsible for evaluating and reviewing the salaries and bonuses of all other officers, employees and consultants of the Corporation. While the Board of Directors of the Corporation has not adopted a written policy concerning the compensation of executive officers, it has developed a consistent approach and philosophy relating to executive compensation. The overriding principles in the determination of executive compensation are the need to provide total compensation packages that will attract and retain qualified and experienced executives, reward the executives for their contribution to the overall success of the Corporation and integrate the longer term interest of the executives with the investment objectives of the Corporation's shareholders.

During the year the Corporation had only six executive officers, and places primary importance on the talent of these employees to manage and grow the Corporation. Based on the size of the Corporation and its relatively small number of employees, the Corporation's executives are required to be multi-disciplined, self-reliant and highly experienced. In determining specific compensation amounts for the Chief Executive Officer, the President, the Chief Financial Officer, the Executive Vice President, Clinical and Regulatory Affairs and the Director, Strategic Development & IP, the Board of Directors considers factors such as experience, individual performance, length of service, role in achieving corporate objectives, positive research and development results, stock price and compensation compared to other employment opportunities for executives.

The Corporation is an early-stage company engaged in the development and commercialization of robotic surgical technologies. As the Corporation is in the product development stage, it cannot rely on revenues from its operations to finance its activities and advance its goals. Consequently the Corporation looks to raising the requisite capital to finance such activities through equity financings, which are influenced by the financial market's assessment of the Corporation's overall enterprise value and its prospects. These in turn are influenced, to a great extent, by the results of its research and development activities and progress in commercializing robotic surgical technologies. The contribution that each of the Chief Executive Officer, the President, the Chief Financial Officer, the Executive Vice President, Clinical and Regulatory Affairs and the Director, Strategic Development & IP make to this endeavour, on a subjective analysis by the Compensation Committee and the Board of Directors at the end of each fiscal year, is the primary factor in determining aggregate compensation. In considering such contribution, the Board of Directors various factors, including, among other things, (i) the ongoing and progressive development of the Corporation's robotic surgical technology; (ii) the identification and attainment of appropriate milestones that adequately reflect the ongoing development of the Corporation's robotic surgical technology, (iii) the formation and development of key partnerships with leading academic and research organizations through which the Corporation's products can be tested, and (iv) the recruitment, management and retention of qualified technical and other personnel, among other things.

Executive compensation consists of base salary and may include cash bonuses and incentive stock options. In establishing compensation, the Board of Directors attempts to pay competitively in the aggregate as well as deliver an appropriate balance between annual compensation (base salary and cash bonuses) and option based compensation (incentive stock options).

The role of the Compensation Committee in recommending to the Board the compensation for Named Executive Officers is described under "Compensation and Compensation Committee".

The decisions in respect of each individual compensation element are taken into account in determining each other compensation element to ensure a Named Executive Officer's overall compensation is consistent with the objectives of the compensation program while considering that not all objectives are applicable to each Named Executive Officer.

The Compensation Committee did not follow a formal practice to consider the implications of the risks associated with the Corporation's compensation policies and practices in 2016.

The Corporation has established a stock option plan for officers, directors, employees and service providers of the Corporation, prepared in compliance with the requirements of the TSX, which is administered by the Board of Directors. The purpose of the Corporation's stock option plan is to advance the interests of the Corporation by closely aligning the participants' personal interests with those of the Corporation's shareholders generally. Subject to the provisions of the stock option plan, the Board of Directors determines and designates from time to time the optionees to whom options are to be granted, the number of Common Shares to be optioned and the other terms and conditions of the stock option grant. The Board of Directors considers factors such as individual performance, the significance of individual contribution to the success of the Corporation, experience, and length of service in determining the amounts of options awarded.

## **Compensation Committee**

The awarding of all compensation including option-based awards is subject to the discretion of the Compensation Committee and Board, exercised annually, as more fully described herein, and is at risk and not subject to any minimum amount. Furthermore, if the Compensation Committee determines that the compensation of the Corporation for certain executives and other personnel, including option-based awards, is low compared to comparable companies, the Compensation Committee may determine to grant option-based awards to assist the Corporation in retaining and attracting key executive talent and to further align the compensation of the executive officers and other key employees with long-term interests of shareholders. The Compensation Committee and the Board also have the discretion to adjust the weightings assigned to objectives for executives, including the Chief Executive Officer, and award a higher or lower annual incentive value to one or more executive officers than achievement of applicable corporate objectives might otherwise suggest, based on their assessment of the challenges and factors that might have impacted the ability to achieve the objective or attain the highest assessment ranking, or other factors such as rewarding individual performance or recognizing the ability (or inability) of the Corporation to achieve its goals and strategic objectives and create shareholder value. In exercising its discretion, the Compensation Committee and Board may also consider, among other factors, risk management and regulatory compliance, the performance of executive officers in managing risk and whether payment of the incentive compensation might present or give rise to material risks to the Corporation or otherwise affect the risks faced by the Corporation and the management of those risks.

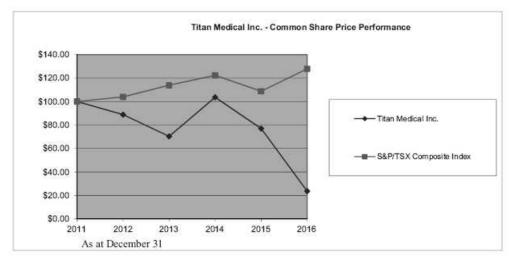
In assessing the general competitiveness of the compensation of the Corporation's Named Executive Officers, the Compensation Committee considers base salary, total cash compensation and total direct compensation (including the value of long term incentives) relative to a comparator group of publicly listed companies and reviews benchmark data composed of the group's executive compensation data for matching positions.

In addition to advice obtained from compensation consultants, the Compensation Committee undertakes its own assessment of the competitiveness of the Corporation's compensation and incentive programs, based on information obtained from such consultants and other information that may be available to the Compensation Committee. Decisions as to compensation are made by the Compensation Committee and the Board and may reflect factors and considerations other than the information and, if applicable, recommendations provided by compensation consultants.

The Company does not impose restrictions on purchasing financial instruments by its director or NEOs.

#### Performance Graph

The Common Shares of the Corporation are listed on the Toronto Stock Exchange (**'TSX''**) and also trade on the OTCQB. The following graph illustrates the Corporation's cumulative shareholder return over the five most recently completed financial years, as measured by the closing price of the Common Shares at the end of the financial years ended December 31, 2012, 2013, 2014, 2015 and 2016, assuming an initial investment of CDN\$100 on December 31, 2011, compared to the closing price of the S&P/TSX Composite Index over the same period.



The following table shows the value of CDN\$100 invested in Common Shares on December 31, 2011 compared to CDN\$100 invested in the S&P/TSX Composite Index\*:

|                         | 31-Dec-11 | 31-Dec-12 | 31-Dec-13 | 31-Dec-14 | 31-Dec-15 | 31-Dec-16 |
|-------------------------|-----------|-----------|-----------|-----------|-----------|-----------|
| Titan Medical Inc.      | 100       | 88.89     | 70.37     | 103.70    | 77.04     | 23.70     |
| S&P/TSX Composite Index | 100       | 104.00    | 113.94    | 122.40    | 108.82    | 127.88    |

\*All amounts in Canadian \$.

The compensation paid by the Corporation to its Named Executive Officers in 2016 was not based in whole or in part on the trading price of the Common Shares in 2016 and does not compare to the trends in such trading price or the above market indices.

#### Summary Compensation Table

The following table and the notes thereto sets forth information concerning annual total compensation for each Named Executive Officer in 2016, in respect of the fiscal years ended December 31, 2016, 2015, and 2014. All amounts in the table below and the notes thereunder are stated in Titan's functional and presentation currency which is U.S. dollars. The exercise prices of options are presented in Canadian currency as they are exercisable in Canadian dollars. Canadian employees are compensated in Canadian dollars. For reporting purposes, the Canadian dollar amount is translated to U.S. dollars using the noon exchange rate, as quoted by the Bank of Canada, on the payroll date.

| Name and<br>principal position                                           | Year Ended<br>Dec. 31 | Salary<br>(U.S.\$) | Share-based<br>Awards<br>(U.S.\$) | Option- based (1)<br>Awards<br>(U.S.\$) | Non-equity Incentive<br>Plan Compensation<br>(\$) |                               | Pension Value<br>(U.S.\$) | All Other<br>Compensation<br>(U.S.\$) | Total<br>Compensation<br>(U.S.\$) |
|--------------------------------------------------------------------------|-----------------------|--------------------|-----------------------------------|-----------------------------------------|---------------------------------------------------|-------------------------------|---------------------------|---------------------------------------|-----------------------------------|
|                                                                          |                       |                    |                                   |                                         | Annual<br>Incontino Plan                          | Long- term<br>sIncentive Plan |                           |                                       |                                   |
| John E. Barker <sup>(3)</sup>                                            | 2016                  | 46,241             | 0                                 | 37,481                                  | 0                                                 |                               | 0                         | 0                                     | 83,722                            |
| Interim Chief                                                            | 2010                  | 0                  | 0                                 | 0                                       | 0                                                 | 0                             | 0                         | 0                                     | 0                                 |
| Executive Officer                                                        | 2014                  | 0                  | 0                                 | 0                                       | 0                                                 | 0                             | 0                         | 0                                     | 0                                 |
| Dennis Fowler <sup>(5)</sup>                                             | 2016                  | 154,606            | 0                                 | 0                                       | 0                                                 | 0                             | 0                         | 0                                     | 154,606                           |
| Executive Vice President,                                                | 2015                  | 231,250            | 0                                 | 79,434                                  | 0                                                 | 0                             | 0                         | 0                                     | 310,684                           |
| Clinical and Regulatory<br>Affairs                                       | 2014                  | 114,581            | 0                                 | 91,470                                  | 0                                                 | 0                             | 0                         | 0                                     | 206,051                           |
| John T.                                                                  | 2016                  | 209,093            | 0                                 | 115,920                                 | 0                                                 | 0                             | 0                         | 0                                     | 325,013                           |
| Hargrove <sup>(4)</sup>                                                  | 2015                  | 203,500            | 0                                 | 79,434                                  | 0                                                 | 0                             | 0                         | 0                                     | 282,934                           |
| Chief Executive Officer                                                  | 2014                  | 145,000            | 0                                 | 91,470                                  | 0                                                 | 0                             | 0                         | 0                                     | 236,470                           |
| Stephen Randall                                                          | 2016                  | 152,716            | 0                                 | 115,920                                 | 0                                                 | 0                             | 0                         | 0                                     | 268,636                           |
| Chief Financial Officer                                                  | 2015                  | 150,515            | 0                                 | 79,434                                  | 0                                                 | 0                             | 0                         | 0                                     | 229,949                           |
|                                                                          | 2014                  | 162,285            | 0                                 | 91,470                                  | 0                                                 | 0                             | 0                         | 0                                     | 253,755                           |
| Reiza Rayman <sup>(2)</sup>                                              | 2016                  | 181,866            | 0                                 | 42,952                                  | 0                                                 | 0                             | 0                         | 0                                     | 224,818                           |
| President                                                                | 2015                  | 184,524            | 0                                 | 31,773                                  | 0                                                 | 0                             | 0                         | 0                                     | 216,297                           |
|                                                                          | 2014                  | 213,843            | 0                                 | 36,588                                  | 0                                                 | 0                             | 0                         | 0                                     | 250,431                           |
| <b>James Shore</b><br>Director, Quality Assurance/<br>Regulatory Affairs | 2016                  | 167,891            | 0                                 | 68,343                                  | 0                                                 | 0                             | 0                         | 0                                     | 236,234                           |

Notes:

(1) The fair value of options granted was estimated at the date of grant using the Black-Scholes option pricing model using assumptions based on expected life, risk free rate, expected dividend yield and expected volatility.

(2) Resigned as President on January 9, 2017.

(3) Resigned as Interim Chief Executive Officer on January 1, 2017.

(4) Resigned as Chief Executive Officer on October 7, 2016.

(5) Resigned as Executive Vice President, Clinical and Regulatory Affairs on August 31, 2016.

## Outstanding share-based awards and option-based awards

The following table shows all awards granted to Named Executive Officers and outstanding on December 31, 2016.

| Name          |             | Option-ba       | used Awards              | Share-based Awards   |                    |                       |                    |
|---------------|-------------|-----------------|--------------------------|----------------------|--------------------|-----------------------|--------------------|
|               | Number of   | Option Exercise | <b>Option Expiration</b> | Value of unexercised | Number of shares   | Market or payout      | Market or payout   |
|               | securities  | Price CDN       | Date                     | in-the- money        | or units of shares | value of share- based | value of vested    |
|               | underlying  | (\$)            | (DD-M-YY)                | options              | that have not      | awards that have      | share-based awards |
|               | unexercised |                 | , í                      | ÛSD(\$)              | vested             | not vested USD        | not paid out or    |
|               | options     |                 |                          |                      | (#)                | (\$)                  | distributed        |
|               | (#)         |                 |                          |                      |                    |                       | USD(\$)            |
| John E.       | 10,606      | 1.66            | 15-Aug-16                | 0                    | 0                  | 0                     | 0                  |
| Barker        | 15,391      | 1.39            | 15-May-17                | 0                    | 0                  | 0                     | 0                  |
|               | 72,991      | 0.56            | 02-Aug-18                | 0                    | 0                  | 0                     | 0                  |
|               | 22,813      | 1.94            | 21-May-19                | 0                    | 0                  | 0                     | 0                  |
|               | 31,306      | 1.72            | 09-Jun-20                | 0                    | 0                  | 0                     | 0                  |
|               | 12,463      | 1.02            | 23-Dec-20                | 0                    | 0                  | 0                     | 0                  |
|               | 170,612     | 1.00            | 24-Aug-21                | 0                    | 0                  | 0                     | 0                  |
| Dennis Fowler | 0           | -               | -                        | 0                    | 0                  | 0                     | 0                  |
| John T.       | 15,391      | 1.39            | 15-May-17                | 0                    | 0                  | 0                     | 0                  |
| Hargrove      | 49,591      | 0.83            | 21-Mar-18                | 0                    | 0                  | 0                     | 0                  |
| 0             | 178,231     | 0.56            | 02-Aug-18                | 0                    | 0                  | 0                     | 0                  |
|               | 231,764     | 0.96            | 20-Dec-18                | 0                    | 0                  | 0                     | 0                  |
|               | 106,096     | 1.76            | 06-Mar-19                | 0                    | 0                  | 0                     | 0                  |
|               | 69,835      | 1.94            | 21-May-19                | 0                    | 0                  | 0                     | 0                  |
|               | 99,383      | 1.72            | 09-Jun-20                | 0                    | 0                  | 0                     | 0                  |
|               | 39,567      | 1.02            | 23-Dec-20                | 0                    | 0                  | 0                     | 0                  |
|               | 527,667     | 1.00            | 24-Aug-21                | 0                    | 0                  | 0                     | 0                  |
| Stephen       | 29,706      | 1.49            | 14-Feb-17                | 0                    | 0                  | 0                     | 0                  |
| Randall       | 125,038     | 0.56            | 02-Aug-18                | 0                    | 0                  | 0                     | 0                  |
|               | 69,835      | 1.94            | 21-May-19                | 0                    | 0                  | 0                     | 0                  |
|               | 99,383      | 1.72            | 09-Jun-20                | 0                    | 0                  | 0                     | 0                  |
|               | 39,567      | 1.02            | 23-Dec-20                | 0                    | 0                  | 0                     | 0                  |
|               | 527,667     | 1.00            | 24-Aug-21                | 0                    | 0                  | 0                     | 0                  |
| Reiza         | 59,413      | 1.49            | 14-Feb-17                | 0                    | 0                  |                       |                    |
| Rayman        | 88,474      | 0.56            | 02-Aug-18                | 0                    | 0                  | 0                     |                    |
|               | 27,934      | 1.94            | 21-May-19                | 0                    |                    | 0                     | 0                  |
|               | 39,753      | 1.72            | 09-Jun-20                | 0                    |                    |                       | 0                  |
|               | 15,827      | 1.02            | 23-Dec-20                | 0                    |                    |                       | 0                  |
|               | 195,518     | 1.00            | 24-Aug-21                |                      |                    |                       |                    |
| James         | 80,000      | 1.08            | 27-Jan-21                | 0                    | 0                  | 0                     | 0                  |
| Shore         | 175,889     | 1.00            | 24-Aug-21                | 0                    | 0                  | 0                     | 0                  |

The following table shows the value from incentive plans vested or earned by Named Executive Officers under the Corporation's incentive plans and the annual incentive bonus payout during the financial year ended December 31, 2016.

| Name             | Option-based awards – Value<br>vested during the year<br>USD(\$) | Share-based awards –<br>Value vested during the year<br>USD(\$) | Non-equity incentive plan<br>compensation – Value earned during<br>the year<br>USD(\$) |  |
|------------------|------------------------------------------------------------------|-----------------------------------------------------------------|----------------------------------------------------------------------------------------|--|
| John E. Barker   | (116,016)                                                        | -                                                               | -                                                                                      |  |
| Dennis Fowler    | (37,711)                                                         | -                                                               | -                                                                                      |  |
| John T. Hargrove | (73,531)                                                         | -                                                               | -                                                                                      |  |
| Stephen Randall  | (93,322)                                                         | -                                                               | -                                                                                      |  |
| Reiza Rayman     | (37,329)                                                         | -                                                               | -                                                                                      |  |
| James Shore      | (119,605)                                                        |                                                                 |                                                                                        |  |

# Stock Option Plan and Stock Options

See "Statement of Executive Compensation - Compensation Discussion and Analysis" for information on the Corporation's stock option plan.

## Securities Authorized for Issuance Under Equity Compensation Plan

The following table sets forth certain information as of December 31, 2016 with respect to compensation plans under which equity securities of the Corporation are authorized for issuance:

| Plan Category                                           | Number of securities to be issued | Weighted–average exercise     | Number of securities remaining |
|---------------------------------------------------------|-----------------------------------|-------------------------------|--------------------------------|
|                                                         | upon exercise of outstanding      | price of outstanding options, | available for future issuance  |
|                                                         | options, warrants and rights      | warrants and rights           | under equity compensation plan |
| Equity compensation plan<br>approved by securityholders | 7,202,250                         | \$1.10                        | 9,448,895                      |

## Termination and Change of Control Benefits

No Named Executive Officer is entitled to any form of compensation as a result of termination or change of control of the Corporation.

#### Indebtedness of Directors and Executive Officers

No director or executive officer of the Company, nor any proposed nominee for election as a director of the Company, nor any associate or affiliate of any of them is or was indebted to the Company at any time since the beginning of the last completed financial year of the Company.

## **Compensation of Directors**

For the year ended December 31, 2016, compensation of directors was as follows: each director of the Corporation received an annual retainer of \$15,000 and an additional \$1,000 for each board meeting attended. Each non-employee director who also served as chair of a committee of the board received an additional \$2,500.

The Board of Directors determines the form of payment of the compensation paid to directors. All compensation to directors is paid through the issuance of stock options or cash, at the discretion of the directors, on an annual basis. Currently all directors compensation is paid through stock options. The table below reflects in detail the compensation earned by non-employee directors in the 12-month period ended December 31, 2016.

| Name                | Cash Fees<br>Earned<br>CDN(\$) | Share-based<br>Awards<br>CDN(\$) | Option-based<br>Awards<br>CDN(\$) | Non-equity Incentive<br>Plan Compensation<br>CDN(\$) | Pension Value<br>CDN(\$) | All Other<br>Compensation<br>CDN(\$) | Total<br>CDN(\$) |
|---------------------|--------------------------------|----------------------------------|-----------------------------------|------------------------------------------------------|--------------------------|--------------------------------------|------------------|
| Martin C. Bernholtz | 0                              | 0                                | 40,632                            | 0                                                    | 0                        | 0                                    | 40,632           |
| Dr. Bruce Wolff     | 0                              | 0                                | 38,373                            | 0                                                    | 0                        | 0                                    | 38,373           |

#### Directors' and Officers' Insurance

The Corporation maintains insurance for the benefit of the Corporation and its directors and officers as a group, in respect of the performance by them of duties of their office. The amount of insurance purchased for the period commencing January 1, 2016 and ended December 31, 2016, was for an aggregate limit of liability (inclusive of costs of defence) of \$7,000,000. There is a deductible amount on a per loss basis of up to \$25,000 for a claim against the Corporation. The premium is paid by the Corporation without distinction as to directors as a group or officers as a group. The premium paid for such insurance in 2016 was \$21,858.

#### Outstanding share-based awards and option-based awards

The following table shows all option-based and share-based awards granted to non-employee directors and that were outstanding on December 31, 2016.

|           |                                                                  | Option-based Av                               |                                        | Share-based Awards                                         |                    |                                                                                    |                    |
|-----------|------------------------------------------------------------------|-----------------------------------------------|----------------------------------------|------------------------------------------------------------|--------------------|------------------------------------------------------------------------------------|--------------------|
| Name      | Number of<br>securities underlying unexercised<br>options<br>(#) | Option Exercise<br>Price per share<br>CDN(\$) | Option Expiration<br>Date<br>(DD-M-YY) | Value of unexercised<br>in-the-money<br>options<br>USD(\$) | or units of shares | Market or payout<br>value of share-based<br>awards that have not<br>vested<br>(\$) | chara-hacad awarde |
| Martin    | 11,633                                                           | 1.66                                          | 15-Aug-16                              | 0                                                          | 0                  | 0                                                                                  | 0                  |
| C.        | 16,750                                                           | 1.39                                          | 15-May-17                              | 0                                                          | 0                  | 0                                                                                  | 0                  |
| Bernholtz | 77,415                                                           | 0.56                                          | 02-Aug-18                              | 0                                                          | 0                  | 0                                                                                  | 0                  |
|           | 21,649                                                           | 1.94                                          | 21-May-19                              | 0                                                          | 0                  | 0                                                                                  | 0                  |
|           | 31,306                                                           | 1.72                                          | 09-Jun-20                              | 0                                                          | 0                  | 0                                                                                  | 0                  |
|           | 12,463                                                           | 1.02                                          | 23-Dec-20                              | 0                                                          | 0                  | 0                                                                                  | 0                  |
|           | 167,094                                                          | 1.00                                          | 24-Aug-21                              | 0                                                          | 0                  | 0                                                                                  | 0                  |
| Bruce G.  | 31,658                                                           | 1.94                                          | 21-May-19                              | 0                                                          | 0                  | 0                                                                                  | 0                  |
| Wolff     | 24,846                                                           | 1.72                                          | 09-Jun-20                              | 0                                                          | 0                  | 0                                                                                  | 0                  |
|           | 9,891                                                            | 1.02                                          | 23-Dec-20                              | 0                                                          | 0                  | 0                                                                                  | 0                  |
|           | 158,300                                                          | 1.00                                          | 24-Aug-21                              | 0                                                          | 0                  | 0                                                                                  | 0                  |

## Incentive Plan Awards – Value Vested or Earned During Fiscal Year and December 31, 2016

The following table shows the value from incentive plans vested or earned by non-employee directors under the Corporation's incentive plans and the annual incentive bonus payout during the financial year ended December 31, 2016.

| Name Option-based awards –<br>Value vested during the year<br>USD(\$) |           | Share-based awards –<br>Value vested during the year<br>(\$) | Non-equity incentive plan<br>compensation – Value earned<br>during the year<br>(\$) |
|-----------------------------------------------------------------------|-----------|--------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Martin C. Bernholtz                                                   | (113,624) | 0                                                            | 0                                                                                   |
| Bruce Wolff                                                           | (107,644) | 0                                                            | 0                                                                                   |

## CORPORATE GOVERNANCE PRACTICES

The Canadian Securities Administrators have adopted National Instrument 58-101 – *Disclosure of Corporate Governance Practices* (the "**Disclosure Rule**"). The Disclosure Rule establishes disclosure requirements regarding corporate governance practices of a reporting issuer as well as the requirement to file any written code of business conduct and ethics that a reporting issuer has adopted. Set out below is a description of the Corporation's approach to corporate governance as required by the Disclosure Rule.

## **Board of Directors**

Currently, three of the four members of the Board of Directors are independent directors. An independent director is defined as a director who has no direct or indirect material relationship with the Corporation, being a relationship which could be reasonably expected to interfere with the exercise of a director's independent judgement. As at December 31, 2016, John E. Barker and Reiza Rayman were considered to be non-independent directors by virtue of their management position and employment relationships with the Corporation. On January 1, 2016 John E. Barker, who had served as Interim Chief Executive Officer of the Corporation following the resignation of John Hargrove as Chief Executive Officer on October 7, 2016, resigned from his management position with the Corporation. John E. Barker has remained on the Board of Directors and is currently an independent director. On January 9, 2016 Reiza Rayman resigned from his position as President of the Corporation. On February 10, 2017 Reiza Rayman resigned as a director of the Corporation. David McNally was appointed Chief Executive Officer and a director of the Corporation. David McNally uses appointed Chief Executive Officer and a director of the Corporation. David McNally is currently the sole non-independent directors and his participation as a director contributes to the effectiveness of the Board. Messrs. Bernholtz, Wolff and Barker are considered to be independent directors. These determinations were made by the Board based upon an examination of the factual circumstances of each director and consideration of any interests, business or relationships, which any director may have with the Corporation.

As part of each regularly scheduled quarterly board meeting, the independent directors have an in camera session, exclusive of non-independent directors and management. At the present time, the Board believes that the knowledge, experience and qualifications of its independent directors are sufficient to ensure that the Board can function independently of management and discharge its responsibilities.

The Chair of the Board, Martin Bernholtz, is an independent director. The Corporation does not have a designated lead director. The Board utilizes its own in-house expertise, and that of its legal counsel, to provide advice and consultation on current and anticipated matters of corporate governance.

## **Director Meetings**

The Board of Directors held 29 meetings during the financial year ended December 31, 2016. The following table summarizes the attendance record for each of the directors at meetings of the Board of Directors, Audit Committee, Compensation Committee and Corporate Governance. The Nominating Committee did not hold any meetings during the year.

| Name                | Number of Meetings Attended by the Directors |                 |                               |                      |
|---------------------|----------------------------------------------|-----------------|-------------------------------|----------------------|
|                     | <b>Board of Directors</b>                    | Audit Committee | <b>Compensation Committee</b> | Governance Committee |
| John E. Barker      | 29/29                                        | 6/6             | 1/1                           | 2/2                  |
| Martin C. Bernholtz | 27/29                                        | 6/6             | 1/1                           | 2/2                  |
| John T. Hargrove    | 17/17                                        | N/A             | 1/1                           | N/A                  |
| Reiza Rayman        | 28/29                                        | N/A             | N/A                           | N/A                  |
| Bruce Wolff         | 24/29                                        | 6/6             | 1/1                           | 2/2                  |

## Other Reporting Issuer Experience

The following directors of the Corporation are directors of the following reporting issuers (other than the Corporation) as of the date of this Circular:

| Name                | Name of Reporting Issuer         | Name of Exchange/Market |  |
|---------------------|----------------------------------|-------------------------|--|
| Martin C. Bernholtz | Continental Precious Metals Inc. | TSX                     |  |
|                     | Covalon Technologies Inc.        | TSX-V                   |  |
|                     | Lingo Media Corporation          | TSX-V                   |  |
|                     | KGIC INC.                        | TSX-V                   |  |
|                     | Musgrove Minerals Corp.          | TSX-V                   |  |
|                     | Select Core Ltd.                 | TSX-V                   |  |
|                     | Nanostruck Technologies Inc.     | CNSX                    |  |
| John E. Barker      | Ecosynthetix Inc.                | TSX                     |  |

## **Board Mandate**

The Board of Directors is responsible for the overall stewardship of the Corporation and operates pursuant to a written mandate, which was updated and approved by the Board on February 10, 2015 and as set out in Schedule "A" to this management information circular.

## **Position Descriptions**

The Board has developed written position descriptions for the Chair of the Board of Directors and the chair of each committee. With respect to management's responsibilities, generally, any matters of material substance to the Corporation are submitted to the Board for, and are subject to, its approval. Such matters include those matters which must by law be approved by the Board (such as share issuances) and other matters of material significance to the Corporation, including any debt or equity financings, investments, acquisitions and divestitures, and the incurring of material expenditures or legal commitments. The Board and/or its audit committee also reviews and approves the Corporation's major communications with shareholders and the public including the annual report, if any, (and financial statements contained therein), quarterly reports to shareholders, the annual management information circular and the annual information form. The specific corporate objectives which the Chief Executive Officer is responsible for meeting (aside from the overall objective of enhancing shareholder value) are, in the Corporation's case, typically related to the advancement, growth, management and financing of the Corporation and its research and development project and matters ancillary thereto.

#### **Orientation and Continuing Education**

The Corporation does not provide a formal orientation or education program for Board members, as it believes that such programs are not appropriate for a development stage company with an experienced Board, the members of which have been selected for their specific expertise.

The Corporation's directors are highly experienced and knowledgeable, both individually and as a group. The directors have either a medical or business background and have long careers in or related to the medical, health or financial industry and are intimately familiar with the Corporation's project, through sufficient interactions with management and technology developers.

To ensure that the Board has and maintains the skill and knowledge necessary for them to meet their obligations as directors of the Corporation, each of the directors has visited the Corporation's principal research and development subcontractor facility and observed the performance of SPORT Surgical System. Summary technology presentations by management relating to various aspects of the Corporation's project is made at meetings of the Board. The Board believes that discussion among the directors and management at these meetings provides a valuable learning resource for the directors with non-technical expertise in the subject matter presented, and that those directors provide management with valuable insights into broader issues facing the Corporation.

#### Ethical Business Conduct

The Corporation is committed to maintaining high standards of corporate governance and this philosophy is communicated by the Board to management, and by management to employees, on a regular basis.

In order to ensure that the directors exercise independent judgment in considering transactions and agreements, the Board requires that all directors declare any conflicts of interest with issues or situations as they arise. This would include transactions/agreements in which a director/officer has material interest.

#### Nomination of Directors

The Corporate Governance and Nominating Committee is a standing committee appointed by the Board and it is responsible for overseeing and assessing the functioning of the Board and the committees of the Board and for the development, recommendation to the Board, implementation and assessment of effective corporate governance principles. The Committee's responsibilities also include identifying candidates for directorship and recommending that the Board select qualified director candidates for election at the next annual meeting of shareholders.

The Corporate Governance and Nominating Committee is composed entirely of independent directors, being John E. Barker, Martin C. Bernholtz and Bruce Wolff.

## Audit Committee

The Board of Directors has established an Audit Committee. The Audit Committee met six times during the financial year ended December 31, 2016.

## Audit Committee Charter

The text of the Audit Committee Charter is attached as Schedule "A" to the Corporation's Annual Information Form for the year ended December 31, 2016, a copy of which is available on SEDAR.

## Composition of the Audit Committee

As of the date of this information circular, the table below sets out the members of the Audit Committee and states whether they are financially literate and/or independent.

| Director            | Independent | Financially Literate |  |
|---------------------|-------------|----------------------|--|
| John E. Barker      | Yes         | Yes                  |  |
| Martin C. Bernholtz | Yes         | Yes                  |  |
| Dr. Bruce Wolff     | Yes         | Yes                  |  |

## Relevant Education and Experience

Messrs. Barker and Bernholtz are directors on the Corporation's Audit Committee and have been senior officers and/or directors of publicly traded companies and business executives for a number of years. Although Dr. Wolff does not have experience as a director or officer of any other publicly traded company, he has served as a director of the Corporation since March 11, 2014. Additionally, Dr. Wolff is a former President of the American Society of Colon and Rectal Surgeons, a former Director and President of the American Board of Colon and Rectal Surgery and a former Vice President and Director of the Foundation for Surgical Fellowships. In these positions, each director has been responsible for receiving financial information relating to the entities of which they were directors. They had, or have developed an understanding of financial statements generally and understanding of the business in which the Corporation is engaged and has an appreciation for the relevant accounting principles for the Corporation's business.

#### External Auditor Service Fees

The table below sets out all fees billed by the Corporation's external auditor in respect of the last two financial years. The Audit Committee has adopted procedures for the engagement of non-audit services as described in section 3 of its charter under "Duties and Responsibilities".

| Financial Year Ended | Audit Fees <sup>(1)</sup> | Audit-Related Fees <sup>(2)</sup> | Tax Fees <sup>(3)</sup> | All Other Fees <sup>(4)</sup> |
|----------------------|---------------------------|-----------------------------------|-------------------------|-------------------------------|
| December 31, 2016    | \$42,083                  | \$25,774                          | \$1,512                 | \$44,143                      |
| December 31, 2015    | \$28,606                  | \$19,089                          | \$2,072                 | \$57,393                      |

Notes:

(1) "Audit Fees" are fees billed by the Corporation's external auditor for services provided in auditing the Corporation's financial statements for the financial year.

(2) "Audit-Related Fees" are fees not included in Audit Fees that are billed by the auditor for assurance and related services that are reasonably related to performing the audit or reviewing the Corporation's interim financial statements.

(3) "Tax Fees" are fees billed by the auditor for professional services rendered for tax compliance, tax advice and tax planning.

(4) "All Other Fees" are fees billed by the auditor for services provided relating to the issuance of prospectus supplements during the year.

#### **Compensation and Compensation Committee**

Compensation matters are dealt with by the Compensation Committee of the Corporation. The function of the Compensation Committee is to review the compensation terms of each officer of the Corporation annually as well as at any other times as necessary. After considering inputs from senior management, the Compensation Committee makes a recommendation to the Board for approved compensation terms for each officer of the Corporation. Among other things, the Compensation Committee also recommends the structure of the compensation in terms of the amount of cash and/or number of options to be granted. Bruce Wolff is the chair of Compensation Committee and has served in such capacity since 2016. He has several years of experience in compensation administration, gained through senior leadership roles within the medical community. The other members of the Compensation Committee have several years of relevant experience, having served as senior business executives with other companies and as members of compensation committees of other companies.

Three members of the Compensation Committee, namely, Messrs. Bernholtz, Barker and Wolff, are considered to be independent directors. The Compensation Committee is composed entirely of independent directors. The Compensation Committee met one time during the financial year ended December 31, 2016.

See also "Statement of Executive Compensation - Compensation Committee".

## **Other Board Committees**

The Board has no standing committee other than the Audit Committee, the Compensation Committee and the Corporate Governance and Nominating Committee.

#### Assessments

The Board, its committees and individual directors are not regularly assessed with respect to their effectiveness and contribution, as the Board believes that such assessments are generally more appropriate for corporations of significantly larger size and complexity than the Corporation and which may have significantly larger boards of directors. A more formal assessment process will be instituted as, if, and when the Board deems necessary.

## **Director Tenure**

It is proposed that each of the persons elected as a director at the Meeting will serve until the close of the next annual meeting of the Corporation or until his or her successor is elected or appointed. The Board has not adopted a term limit for directors. The Board believes, at this time, that the imposition of director term limits on a board may discount the value of experience and continuity amongst board members and runs the risk of excluding experienced and potentially valuable board members. This decision is subject to review on an annual basis. The Board does not follow a formal director assessment procedure in evaluating Board members. However, the Board believes that it can best strike the right balance between continuity and fresh perspectives without mandated term limits.

#### Representation of Women on the Board and in Executive Officer Positions

The Corporate Governance and Nominating Committee's Charter encourages diversity in the composition of the Board and requires periodic review of the composition of the Board as a whole to recommend, if necessary, measures to be taken so that the Board reflects the appropriate balance of diversity, knowledge, experience, skills and expertise required for the Board as a whole. Accordingly, while the Board has not adopted a written policy nor targets relating to the identification and nomination of women directors, the Board does take into consideration a nominee's potential to contribute to diversity within the Board. Given that diversity is part of determining the overall balance, which includes gender, the Board has not adopted a gender specific policy target.

The Corporate Governance and Nominating Committee recognizes the value of diversity. Currently, the Board is comprised of male directors. The Board does not follow a formal process for proposing female nominees for Board vacancies. Rather the Board focuses on the qualification and professional or business experience of each individual nominee.

Consistent with the Corporation's approach to diversity at the Board level, the Corporation's hiring practices include consideration of diversity across a number of areas, including gender. None of the current executive officer positions of the Corporation are held by women. The Corporation does not have a target number of women executive officers. Given the small size of its executive team, the Corporation believes that implementing targets would not be appropriate. However, in its hiring practices, the Corporation considers the level of representation of women in executive officer positions.

## APPOINTMENT AND REMUNERATION OF AUDITORS

Unless such authority is withheld, the persons named in the enclosed instrument of proxy intend to vote for the re-appointment of BDO Canada LLP, Chartered Accountants, Licensed Public Accountants, of Toronto, Ontario, as auditors of the Corporation to hold office until the next annual meeting of shareholders and to authorize the directors to fix their remuneration. BDO Canada LLP were first appointed auditors of the Corporation on December 13, 2010.

## **OTHER ITEMS OF BUSINESS**

Management is not aware of any other matters which are to come before the Meeting other than the matters referred to in the Notice of Meeting. However, if any matters other than those referred to herein should be presented at the Meeting, the persons named in the enclosed proxy are authorized to vote the shares represented by the proxy in accordance with their best judgement.

## INTEREST OF CERTAIN PERSONS OR COMPANIES IN MATTERS TO BE ACTED UPON

Other than as disclosed elsewhere in this Circular, no current director, nominee director or executive officer of the Company, nor any person who has held such position since the beginning of the last completed financial year, nor any associate or affiliate of any one of them, has any material interest, direct or indirect, by way of beneficial ownership of securities or otherwise, in any matter to be acted on at the Meeting.

## ADDITIONAL INFORMATION

Financial information for the Corporation is provided in the Corporation's comparative annual financial statements and management's discussion and analysis for the most recently completed financial year. This information and additional information relating to the Corporation can be found on the SEDAR website at www.sedar.com and on the Corporation's website at www.titanmedicalinc.com.

Copies of the above and other disclosure documents of the Corporation may also be obtained from the Secretary of the Corporation upon request.

## DIRECTORS' APPROVAL

The contents and the distribution of this Circular have been approved by the Board of Directors.

DATED the 18<sup>th</sup> day of May, 2017.

(signed) David J. McNally

President and Chief Executive Officer Titan Medical Inc.

#### SCHEDULE "A"

## **BOARD OF DIRECTORS MANDATE**

## Introduction

The board of directors (the "**Board**") of Titan Medical Inc. (the "**Company**") is elected by the shareholders of the Company and is responsible for the stewardship of the Company. The purpose of this mandate is to describe the principal duties and responsibilities of the Board, as well as some of the policies and procedures that apply to the Board in discharging its duties and responsibilities.

#### **Chair of the Board of Directors**

The Chair of the Board (the "Chair") will be appointed by the Board, after considering the recommendation of the Company's Corporate Governance and Nomination Committee, for such term as the Board may determine.

#### Independence

The Board will be comprised of a majority of independent directors, as established by applicable laws and the rules of any stock exchanges upon which the Company's securities are listed, including section 3.1 of National Policy 58-201 – *Corporate Governance Guidelines*.

Where the Chair is not independent, the independent directors may select one of their number to be appointed lead director of the Board for such term as the independent directors may determine. The Chair or lead director, if appointed, will chair regular meetings of the independent directors and assume other responsibilities that the independent directors as a whole have designated.

## Role and Responsibilities of the Board

The role of the Board is to act honestly and in good faith and act in the best interest of the Company, and each member of the Board must exercise the care, diligence and skill that a reasonably prudent person would exercise in comparable circumstances. The Board is ultimately accountable and responsible for providing independent, effective leadership in supervising the management of the business and affairs of the Company.

The responsibilities of the Board include:

- adopting a strategic planning process;
- risk identification and ensuring that procedures are in place for the management of those risks;
- the Company's internal control and management information systems;
- review and approve annual operating plans and budgets;
- corporate social responsibility, ethics and integrity;
- review the integrity of the Chief Executive Officer (CEO) and the other executive officers and ensure that the CEO and other executive officers create a culture of integrity;
- succession planning, including the appointment, training and supervision of management;
- delegations and general approval guidelines for management;

- monitoring financial reporting and management;
- monitoring internal control and management information systems;
- corporate disclosure and communications including the adoption of a Corporate Disclosure Policy, which shall serve as the communication policy for the Company;
- adopting measures for receiving feedback from stakeholders;
- adopting key corporate policies designed to ensure that the Company, its directors, officers and employees comply with all applicable laws, rules and
  regulations and conduct their business ethically and with honesty and integrity;
- developing the Company's approach to governance; and
- such other items as required by law including the *Business Corporations Act* (Ontario).

Meetings of the Board will be held at least quarterly, with additional meetings to be held depending on the state of the Company's affairs and in light of opportunities or risks which the Company faces. After each meeting of the Board, the directors will meet without management being present. In addition, separate meetings of the independent directors of the Board may be held at which members of management and the non-independent directors are not present.

The Board will delegate responsibility for the day-to-day management of the Company's business and affairs to the Company's senior officers and will supervise such senior officers appropriately.

The Board may delegate certain matters it is responsible for to Board committees, presently consisting of the Audit Committee, Corporate Governance and Nominating Committee and Compensation Committee.

## Strategic Planning Process and Risk Management

The Board will adopt a strategic planning process to establish objectives and goals for the Company's business and will review, approve and modify as appropriate the strategies proposed by senior management to achieve such objectives and goals. The Board will review and approve, at least on an annual basis, a strategic plan which takes into account, among other things, the opportunities and risks of the Company's business and affairs.

The Board, in conjunction with management, will identify the principal risks of the Company's business and oversee management's implementation of appropriate systems to effectively monitor, manage and mitigate the impact of such risks.

## Succession Planning, Appointment and Supervision of Management

The Board will approve the succession plan for the Company, including the selection, appointment, supervision and evaluation of the CEO or any person acting in such capacity, and the other senior officers of the Company, and will also approve the compensation of the CEO or any person acting in such capacity, and the other senior officers of the Company.

In furtherance of the succession plan, the Board shall monitor senior management and oversee their training.

## **Delegations and Approval Authorities**

The Board will delegate to the CEO, or any person acting in such capacity, senior management authority over the day-to-day management of the business and affairs of the Company.

#### **Corporate Disclosure and Communications**

The Board will seek to ensure that all corporate disclosure complies with all applicable laws, rules and regulations and the rules and regulations of the stock exchanges upon which the Company's securities are listed and the Corporate Disclosure Policy. In addition, the Board will adopt procedures that seek to ensure the security holders have a direct contact to a designated individual in order to provide them with corporate information.

#### **Corporate Policies**

The Board will adopt and monitor compliance of the policies and procedures, which are designed to ensure that the Company, its directors, officers and employees comply with all applicable laws, rules and regulations and conduct the Company's business ethically and with honesty and integrity. Principal policies consist of:

- Code of Conduct;
- Insider Trading Policy;
- Whistleblower Policy

#### **Review of Mandate**

The Corporate Governance and Nominating Committee will annually review and assess the adequacy of this mandate and recommend any proposed changes to the Board for consideration. The Board may, from time to time, amend this Mandate.

The Board may, from time to time, permit departures from the terms of this Mandate, either prospectively or retrospectively. The terms of this Mandate are not intended to give rise to civil liability on the part of the Company or its directors or officers to shareholders, security holders, customers, suppliers, competitors, employees or other persons, or to any other liability whatsoever on their part.

Effective: February 10, 2015

TOR01: 6787052: v9

# TITAN MEDICAL

## Computershare

8th Floor, 100 University Avenue Toronto, Ontario MSJ 2Y1 www.computershare.com

Security Class

Holder Account Number

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Fold

## Form of Proxy - ANNUAL AND SPECIAL MEETING OF SHAREHOLDERS TO BE HELD ON JUNE 15, 2017

## This Form of Proxy is solicited by and on behalf of Management.

#### Notes to proxy

- 1. Every holder has the right to appoint some other person or company of their choice, who need not be a holder, to attend and act on their behalf at the meeting or any adjournment or postponement thereof. If you wish to appoint a person or company other than the persons whose names are printed herein, please insert the name of your chosen proxyholder in the space provided (see reverse).
- 2. If the securities are registered in the name of more than one owner (for example, joint ownership, trustees, executors, etc.), then all those registered should sign this proxy. If you are voting on behalf of a corporation or another individual you must sign this proxy with signing capacity stated, and you may be required to provide documentation evidencing your power to sign this proxy
- 3. This proxy should be signed in the exact manner as the name(s) appear(s) on the proxy.
- 4. If this proxy is not dated, it will be deemed to bear the date on which it is mailed by Management to the holder.
- 5. The securities represented by this proxy will be voted as directed by the holder, however, if such a direction is not made in respect of any matter, this proxy will be voted as recommended by Management.
- 6. The securities represented by this proxy will be voted in favour or withheld from voting or voted against each of the matters described herein, as applicable, in accordance with the instructions of the holder, on any ballot that may be called for and, if the holder has specified a choice with respect to any matter to be acted on, the securities will be voted accordingly.
- 7. This proxy confers discretionary authority in respect of amendments or variations to matters identified in the Notice of Meeting or other matters that may properly come before the meeting or any adjournment or postponement thereof
- 8. This proxy should be read in conjunction with the accompanying documentation provided by Management.

Proxies submitted must be received by 5:00 p.m., Eastern Time, on June 13, 2017.

## VOTE USING THE TELEPHONE OR INTERNET 24 HOURS A DAY 7 DAYS A WEEK!



- 1-866-732-VOTE (8683) Toll Free



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You can enroll to receive future securityholder communications electronically by visiting www.investorcentre.com and clicking at the bottom of the page

If you vote by telephone or the Internet, DO NOT mail back this proxy.

Voting by mail may be the only method for securities held in the name of a corporation or securities being voted on behalf of another individual Voting by mail or by Internet, are the only methods by which a holder may appoint a person as proxyholder other than the Management nominees named on the reverse of this proxy. Instead of mailing this proxy, you may choose one of the two voting methods outlined above to vote this proxy.

To vote by telephone or the Internet, you will need to provide your CONTROL NUMBER listed below.

CONTROL NUMBER

## Appointment of Proxyholder

| We, being holder(s) of Titan Medical Inc. hereby appoint: David McNally, | OR. |
|--------------------------------------------------------------------------|-----|
| or failing him, Martin Bernholtz                                         |     |

Print the name of the person you are appointing if this person is someone other than the Management Nominees listed herein.

as mylour proxyholder with full power of substitution and to attend, act and to vote for and on behalf of the shareholder in accordance with the following direction (or if no directions have been given, as the proxyholder sees fit) and all other matters that may properly come before the Annual and Special Meeting of shareholders of Titan Medical Inc. to be held at Borden Ladner Gervais LLP, Bay Adelaide Centre, East Tower, 22 Adelaide Street West, 34th Floor, Toronto, Ontario on June 15, 2017 at 1:30 p.m. and at any adjournment or postporement thereof.

## VOTING RECOMMENDATIONS ARE INDICATED BY HIGHLIGHTED TEXT OVER THE BOXES.

| 1. Election of Directors                                    | 101           | Withho     | d                                    | For               | Withhole   | đ                                                                          | 1.01 | Withhold |      |
|-------------------------------------------------------------|---------------|------------|--------------------------------------|-------------------|------------|----------------------------------------------------------------------------|------|----------|------|
| 01. John Barker                                             |               |            | 02. Martin Bernholtz                 |                   |            | 03. David McNally                                                          |      |          |      |
| 04. Stephen Randall                                         |               |            | 05. John Schellhom                   |                   |            | 06. Bruce Wolff                                                            |      |          | Fold |
|                                                             |               |            |                                      |                   |            |                                                                            | for  | Against  |      |
|                                                             | tors of the C | orporation | n in its sole discretion, within a m |                   |            | pration on the basis of a ratio to be<br>ation common share for every 5 to |      |          |      |
|                                                             |               |            |                                      |                   |            |                                                                            | 101  | Withhold |      |
| 3. Appointment of Auditors<br>Appointment of BDO Canada LLI | P as Auditor  | s of the C | orporation for the ensuing year      | and authorizing t | he Directo | ors to fix their remuneration.                                             |      |          |      |

Fold

| instructions to be executed.                                                                                                               | is section must be completed for your                                                                                                                  | Signature(s)                 | Date     |  |
|--------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|----------|--|
| We authorize you to act in accordan<br>evoke any proxy previously given wil<br>indicated above, this Proxy will be                         | ce with mylour instructions set out above. IWe hareby<br>h respect to the Meeting. If no voting instructions at<br>voted as recommended by Management. | /re                          | DDINMIYY |  |
| Interim Financial Statementa - Mark this<br>ike to receive interim Financial Statements<br>accompanying Management's Discussion i<br>mail. | and like to receive the Annual Fina                                                                                                                    | s Discussion and Analysis by |          |  |
| you are not maining back your proxy, you                                                                                                   | may register unime to receive the above miancial report(s) by                                                                                          | A R 1                        |          |  |

## Item 1 Name and Address of Company

Titan Medical Inc. (the **"Company"** or **"Titan"**) 170 University Avenue Suite 1000 Toronto, Ontario M5H 3B3

#### Item 2 Date of Material Change

April 28, 2017.

## Item 3 News Release

The press release attached as Schedule "A" was disseminated through Marketwired on April 28, 2017, respectively, with respect to the material changes.

#### Item 4 Summary of Material Change

On April 28, 2017 the Company announced it had terminated its negotiations with Longtai Medical, Inc. for distribution of the SPORT single port surgical system in the Asia Pacific region. Titan had determined to focus on execution for initial commercialization in the United States and the European Union.

| Item 5                                                 | Full Description of Material Change                         |  |  |  |
|--------------------------------------------------------|-------------------------------------------------------------|--|--|--|
| 5.1                                                    | Full Description of Material Change                         |  |  |  |
| Please see the press release attached as Schedule "A". |                                                             |  |  |  |
| 5.2                                                    | Disclosure for Restructuring Transactions                   |  |  |  |
| Not applicable.                                        |                                                             |  |  |  |
| Item 6                                                 | Reliance on subsection 7.1(2) of National Instrument 51-102 |  |  |  |
| Not applicable.                                        |                                                             |  |  |  |
| Item 7                                                 | Omitted Information                                         |  |  |  |
| Not applicable.                                        |                                                             |  |  |  |
|                                                        |                                                             |  |  |  |

#### Item 8 Executive Officer

The following executive officer is knowledgeable about the material changes and may be contacted about this report:

Stephen Randall Chief Financial Officer (416) 548-7522 (ext. 152)

Email: <u>stephen@titanmedicalinc.com</u> Website: <u>www.titanmedicalinc.com</u>

Item 9 Date of Report

June 2, 2017.

Schedule "A"

[See Attached]



#### 170 University Avenue • Suite 1000 Toronto, Ontario, Canada M5H 3B3 • Tel: 416.548.7522 info@titanmedicalinc.com • www.titanmedicalic.com

#### TITAN MEDICAL ENDS NEGOTIATIONS WITH LONGTAI MEDICAL FOR SPORT DISTRIBUTION IN ASIA PACIFIC

**TORONTO (April 28, 2017)** – Titan Medical Inc. (TSX: TMD) (OTCQX: TITXF) (Titan), a medical device company focused on the design, development and commercialization of a robotic surgical system for application in minimally invasive surgery (MIS), announces it has terminated its negotiations with Longtai Medical, Inc. (Longtai), a Canadian subsidiary of Ningbo Long Hengtai International Trade Co. Ltd., for distribution of the SPORT single port surgical system in the Asia Pacific region. Titan has determined to focus on execution for initial commercialization in the United States and the European Union, and will return a \$2 million deposit to Longtai.

David McNally, Chief Executive Officer of Titan Medical, said, "We are focused on our largest target markets in the United States and Europe. It is worth noting that lengthy discussions with Longtai began in October 2015 and included a good faith \$2 million deposit and two term extensions, but with initial priority the United States and Europe, other partnering opportunities and our commitment to focus the contemplated distribution agreement is not in the best interests of Titan. We part ways with Longtai amicably and look forward to reporting on additional milestone progress in the near-term."

#### About Titan Medical Inc.

Titan Medical Inc. is focused on the design and development through the planned commercialization of a robotic surgical system for use in MIS. The Company's SPORT Surgical System, currently under development, includes a surgeon-controlled robotic platform that features multi-articulating instruments for performing MIS procedures through a single incision. The surgical system also includes a workstation that provides a surgeon with an advanced ergonomic interface to the robotic platform for controlling the instruments and provides a 3D high-definition endoscopic view inside a patient's body. The SPORT Surgical System is designed to enable surgeons to perform a broad set of general abdominal, gynecologic and urologic procedures. For more information, visit the Company's website at <u>www.titanmedicalinc.com</u>.

#### **Forward-Looking Statements**

This news release contains "forward-looking statements" which reflect the current expectations of management of the Company's future growth, results of operations, performance and business prospects and opportunities. Wherever possible, words such as "may", "would", "could", "will", "anticipate", "believe", "plan", "expect", "intend", "estimate", "potential for" and similar expressions have been used to identify these forward-looking statements. These statements reflect management's current beliefs with respect to future events and are based on information currently available to management. Forward-looking statements involve significant risks, uncertainties and assumptions. Many factors could cause the Company's actual results, performance or achievements to be materially different from any future results, performance or achievements that may be expressed or implied by such forward-looking statements, including, without limitation, those listed in the "Risk Factors" section of the Company's Annual Information Form dated March 31, 2017 (which may be viewed at www.sedar.com). Should one or more of these risks or uncertainties materialize, or should assumptions underlying the forward-looking statements prove incorrect, actual results, performance or achievements may vary materially from those expressed or implied by the forward-looking statements. Although the forward-looking statements contained in this news release. These factors should be considered carefully, and prospective investors should not place undue reliance on the forward-looking statements. Although the forward-looking statements contained in the news release are based upon what management currently believes to be reasonable assumptions, the Company cannot assure prospective investors that actual results, performance or achievements will be consistent with these forward-looking statements.

## CONTACTS:

LHA Kim Sutton Golodetz (212) 838-3777 kgolodetz@lhai.com or Bruce Voss (310) 691-7100 bvoss@lhai.com



170 University Avenue • Suite 1000 Toronto, Ontario, Canada M5H 3B3 • Tel: 416.548.7522 info@titanmedicalinc.com • www.titanmedicalic.com

#### TITAN MEDICAL GRANTED EUROPEAN PATENT RELATED TO SPORT SURGICAL SYSTEM ROBOTIC INSTRUMENTS

TORONTO (June 7, 2017) – Titan Medical Inc. (TSX: TMD) (OTCQB: TITXF), a medical device company focused on the design, development and commercialization of a robotic surgical system for application in minimally invasive surgery (MIS), announces the publication of European Patent No. EP2996613, titled "Articulated Tool Positioner and System Employing Same."

The patent describes the smooth and continuously curved articulation of a robotic instrument to position and orient an end-effector in multiple degrees of freedom. The continuous curve architecture potentially provides several advantages, including facilitating a central lumen that extends through the instrument to provide an independent roll of the end-effector, and provision for a multitude of removable end-effectors. Corresponding patent applications are pending in several countries, including the U.S. and China.

"Intellectual property is the foundation of our future success and we are pleased to strengthen our proprietary position with the granting of this patent, the second issued to Titan Medical this quarter in relation to our SPORT single port robotic surgical system. The snake-like articulation of the instruments and resulting movement in orientation of the end-effector are key differentiators that we believe will position our offering competitively in the marketplace," said David McNally, President and CEO of Titan Medical. "The next step is to nationalize the patent in specific European countries in accordance with our commercial business model, including the United Kingdom, France and Germany."

#### About Titan Medical Inc.

Titan Medical Inc. is focused on the design and development through to the planned commercialization of a robotic surgical system for application in MIS. Titan's SPORT Surgical System, currently under development, includes a surgeon-controlled robotic platform that features multi-articulating instruments for performing MIS procedures through a single port. The surgical system also includes a workstation that provides a surgeon with an advanced ergonomic interface to the robotic platform for controlling the instruments and provides a 3D high-definition endoscopic view inside a patient's body. The SPORT system is designed to enable surgeons to perform a broad set of general abdominal, gynecologic, urologic and colorectal procedures. For more information, visit the Company's website at <a href="https://www.titanmedicalinc.com">www.titanmedicalinc.com</a>.

#### Forward-Looking Statements

This news release contains "forward-looking statements" which reflect the current expectations of management of the Company's future growth, results of operations, performance and business prospects and opportunities. Wherever possible, words such as "may", "would", "could", "will", "anticipate", "believe", "plan", "expect", "intend", "estimate", "potential for" and similar expressions have been used to identify these forward-looking statements. These statements reflect management's current beliefs with respect to future events and are based on information currently available to management. Forward-looking statements involve significant risks, uncertainties and assumptions. Many factors could cause the Company's actual results, performance or achievements to be materially different from any future results, performance or achievements that may be expressed or implied by such forward-looking statements, including, without limitation, those listed in the "Risk Factors" section of the Company's Annual Information Form dated March 31, 2017 (which may be viewed at www.sedar.com). Should one or more of these risks or uncertainties materialize, or should assumptions underlying the forward-looking statements prove incorrect, actual results, performance or achievements may vary materially from those expressed or implied by the forward-looking statements. Although the forward-looking statements contained in this news release. These factors should be considered carefully, and prospective investors should not place undue reliance on the forward-looking statements. Although the forward-looking statements contained in the news release are based upon what management currently believes to be reasonable assumptions, the Company cannot assure prospective investors that actual results, performance or achievements will be consistent with these forward-looking statements.

## CONTACTS:

LHA Investor Relations Kim Sutton Golodetz (212) 838-3777 kgolodetz@lhai.com or Bruce Voss (310) 691-7100 bvoss@lhai.com



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#### TITAN MEDICAL INC. ANNOUNCES MARKETED OFFERING OF UNITS

Toronto, ON – June 9, 2017 – Titan Medical Inc. ("Titan" or the "Company") (TSX: TMD) (OTCQB: TITXF) announced today that it has filed a preliminary short form prospectus in connection with a proposed marketed offering of units of the Company (the "Units") for minimum gross proceeds of US\$8,600,000 and maximum gross proceeds of US\$17,300,000 (the "Offering"). Each Unit will be comprised of common shares of the Company ('Common Shares") and Common Share purchase warrants (each full warrant a "Warrant", and together with the Units and Common Shares the "Securities"). The Offering will be undertaken on a "best efforts" agency basis in the provinces of Ontario, British Columbia and Alberta pursuant to the Company's preliminary short form prospectus dated June 8, 2017 (the "Preliminary Prospectus"), filed with securities regulators in Ontario, British Columbia and Alberta, and may be undertaken in the United States pursuant to exemptions from the registration requirements of the U.S.

Bloom Burton Securities Inc. is the sole agent for the Offering in Canada (the 'Canadian Agent'). The Securities may also be offered for sale in the United States through United States registered broker-dealers, Maxim Group LLC, and WallachBeth Capital LLC (together with the Canadian Agent, the "Agents") through an exempt private placement. The number of Units to be distributed, the price of each Unit and the exercise price and term of each Warrant will be determined by negotiation between the Company and the Agents in the context of the market.

The Company will apply to list the Common Shares on the Toronto Stock Exchange (the "TSX"). The Offering is subject to a number of conditions, including, without limitation, receipt of all regulatory approvals and approval of the TSX. The net proceeds of the Offering will be used to fund continued development work in connection with the Company's SPORT Surgical System, as well as for working capital and other general corporate purposes. Further details are disclosed in the Preliminary Prospectus, available at www.sedar.com.

#### About Titan Medical Inc.

Titan Medical Inc. is a Canadian public company focused on research and development through to the planned commercialization of computer-assisted robotic surgical technologies for application in minimally invasive surgery ("MIS"). The Company is currently developing the SPORT Surgical System, a single-port robotic surgical system. The SPORT Surgical System is comprised of a surgeon-controlled patient cart that includes a 3D high definition vision system and multi-articulating instruments for performing MIS procedures, and a surgeon workstation that provides the surgeon with an advanced ergonomic interface to the patient cart and a 3D endoscopic view inside the patient's body during MIS procedures. With the SPORT Surgical System, the Company aims to pursue a broad set of surgical indications, including general abdominal, gynecologic and urologic procedures.

For more information, please visit the Company's website at www.titanmedicalinc.com.

#### Forward-Looking Statements

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#### **U.S. Securities Law Caution**

The securities described herein have not been, and will not be, registered under the United States Securities Act of 1933, as amended (the "U.S. Securities Act"), or any state securities laws, and accordingly, may not be offered or sold to, or for the account or benefit of, persons in the United States or "U.S. persons," as such term is defined in Regulation S promulgated under the U.S. Securities Act ("U.S. Persons"), except in compliance with the registration requirements of the U.S. Securities Act and applicable state securities requirements or pursuant to exemptions therefrom. This press release does not constitute an offer to sell or a solicitation of an offer to buy any of the Company's securities to, or for the account or benefit of, persons in the United States or U.S. Persons.

#### Neither TSX nor its Regulation Services Provider (as that term is defined in the policies of the TSX) accepts responsibility for the adequacy or accuracy of this release.

## CONTACT INFORMATION

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#### TITAN MEDICAL ANNOUNCES VOTING RESULTS FROM ITS ANNUAL AND SPECIAL MEETING OF SHAREHOLDERS

TORONTO (June 16, 2017) – Titan Medical Inc. ("Titan" or the "Company") (TSX: TMD) (OTCQB: TITXF), a medical device company focused on the design, development and commercialization of a robotic surgical system for application in minimally invasive surgery, reported shareholder vote results from the Company's Annual and Special Meeting held on Thursday, June 15, 2017.

All of management's nominees for election were duly elected as directors of the Company by the shareholders present or represented by proxy at the meeting. The results of the vote were reported to the meeting by Computershare, which acted as scrutineer at the meeting, as follows:

|                  | For<br>Number | %     | Withheld<br>Number | %     |
|------------------|---------------|-------|--------------------|-------|
| John Barker      | 33,435,150    | 84.48 | 6,142,853          | 15.52 |
| Martin Bernholtz | 36,045,394    | 91.07 | 3,532,609          | 8.93  |
| David McNally    | 39,035,799    | 98.63 | 542,204            | 1.37  |
| Stephen Randall  | 22,871,269    | 57.79 | 16,706,734         | 42.21 |
| John Schellhorn  | 38,811,387    | 98.06 | 766,616            | 1.94  |
| Bruce Wolff      | 34,322,495    | 86.72 | 5,255,508          | 13.28 |

A total of 134,640,154 of the 188,238,646 common shares outstanding were voted at the meeting.

Shareholders passed the motion (with 117,585,866 votes for and 17,054,287 votes against) authorizing the consolidation of the outstanding common shares of the Company on the basis of a ratio to be determined by the board of directors of the Company in its sole discretion, within a range of one post-consolidation common share for every 5 to 30 outstanding pre-consolidation common shares of the Company.

The appointment of BDO Canada LLP as Auditors of the Company was approved by shareholders (with 129,873,373 votes for and 4,766,781 votes withheld) in respect of the motion.

#### About Titan Medical Inc.

Titan Medical Inc. is a Canadian public company focused on research and development through to the planned commercialization of computer-assisted robotic surgical technologies for application in minimally invasive surgery ("**MIS**"). The Company is currently developing the SPORT Surgical System, a single-port robotic surgical system. The SPORT Surgical System is comprised of a surgeon-controlled patient cart that includes a 3D high definition vision system and multi-articulating instruments for performing MIS procedures, and a surgeon workstation that provides the surgeon with an advanced ergonomic interface to the patient cart and a 3D endoscopic view inside the patient's body during MIS procedures. With the SPORT Surgical System, the Company aims to pursue a broad set of surgical indications, including general abdominal, gynecologic and urologic procedures.

For more information, please visit the Company's website at www.titanmedicalinc.com.

#### Forward-Looking Statements

This news release contains "forward-looking statements" which reflect the current expectations of management of the Company's future growth, results of operations, performance and business prospects and opportunities. Wherever possible, words such as "may", "would", "could", "will", "anticipate", "believe", "plan", "expect", "intend", "estimate", "potential for" and similar expressions have been used to identify these forward-looking statements. These statements reflect management's current beliefs with respect to future events and are based on information currently available to management. Forward-looking statements involve significant risks, uncertainties and assumptions. Many factors could cause the Company's actual results, performance or achievements to be materially different from any future results, performance or achievements, including, without limitation, those listed in the "Risk Factors" section of the Company's Annual Information Form dated March 31, 2017 (which may be viewed at www.sedar.com). Should one or more of these risks or uncertainties materialize, or should assumptions underlying the forward-looking statements prove incorrect, actual results, performance, or achievements may vary materially from those expressed or implied by the forward-looking statements contained in this news release. These factors should be considered carefully, and prospective investors should not place undue reliance on the forward-looking statements. Although the forward-looking statements contained in the news release are based upon what management currently believes to be reasonable assumptions, the Company cannot assure prospective investors that actual results, performance or achievements will be consistent with these forward-looking statements.

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#### TITAN MEDICAL NAMED BEST CANADIAN IP DEPARTMENT AT 2017 INTERNATIONAL LEGAL ALLIANCE SUMMIT & AWARDS

Director of Strategic Development and Intellectual Property Jasminder Brar recognized as a global IP strategy leader by Intellectual Asset Management

TORONTO (June 19, 2017) – Titan Medical Inc ("Titan" or the "Company") (TSX: TMD) (OTCQB: TITXF), a medical device company focused on the design, development and commercialization of a robotic surgical system for application in minimally invasive surgery (MIS), was named "Best Canadian IP Department" at the International Legal Alliance Summit & Awards (ILASA) event held on June 15, 2017 in New York City. The event was organized by the Paris-based Leaders League and gathered more than 450 senior representatives from leading law firms as well as general counsel from more than 40 countries. Winners were chosen by specialized jury panels and the full list is available here.

Separately, Intellectual Asset Management (IAM) named Jasminder Brar, Titan Medical's Director of Strategic Development and Intellectual Property, to the 2017 edition of IAM Strategy 300 – The World's Leading IP Strategists. The guide lists the individuals that in-depth research undertaken by a team based in London, Washington, DC and Hong Kong has shown possess world-class skills in the development and rollout of strategies that maximize the value of patents, copyright, trademarks and other IP rights. This is the third consecutive year that Mr. Brar has been included in the guide. The 2017 edition can be found here.

"Intellectual property is vital to our success and we are thrilled that our efforts and accomplishments have been recognized by our peers," said David McNally, President and CEO of Titan Medical. "ILASA is a prestigious annual event and we are honored to share the award for Best Canadian IP Department with Bombardier Aerospace, a giant Canadian innovator."

"I also want to congratulate Jasminder on his inclusion in IAM Strategy 300 for the third consecutive year and acknowledge his leadership and know-how in advancing our intellectual property efforts."

#### About Titan Medical Inc.

Titan Medical Inc. is a Canadian public company focused on research and development through to the planned commercialization of computer-assisted robotic surgical technologies for application in minimally invasive surgery ("MIS"). The Company is currently developing the SPORT Surgical System, a single-port robotic surgical system. The SPORT Surgical System is comprised of a surgeon-controlled patient cart that includes a 3D high definition vision system and multi-articulating instruments for performing MIS procedures, and a surgeon workstation that provides the surgeon with an advanced ergonomic interface to the patient cart and a 3D endoscopic view inside the patient's body during MIS procedures. With the SPORT Surgical System, the Company aims to pursue a broad set of surgical indications, including general abdominal, gynecologic and urologic procedures.

For more information, please visit the Company's website at www.titanmedicalinc.com.

#### Forward-Looking Statements

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#### Titan Medical Inc. Announces Pricing of Marketed Offering of Units

Toronto, ON – (Marketwired – June 20, 2017) – Titan Medical Inc. ("Titan" or the "Company") (TSX: TMD) (OTCQB: TITXF) is pleased to announce today that it has priced its previously announced marketed offering (the "Offering") of units of the Company (the "Units"). Pursuant to the Offering, Titan will issue Units at a price of CDN \$0.15 per Unit (approximately US \$0.11 per Unit). Each Unit is comprised of one common share of the Company (a "Common Share") and one Common Share purchase warrant of the Company (a "Warrant"). Each Warrant is exercisable for one Common Share at a price of CDN \$0.20 (approximately US \$0.15), for a period of five years following the closing of the Offering (the "Closing").

Mr. Martin Bernholtz, Chairman of the Board, is pleased to advise that the entire Board of Directors and Officers of the Company have committed to participate in this offering.

The Offering will be undertaken on a best efforts basis pursuant to the terms and conditions of an agency agreement to be entered into between the Company and Bloom Burton Securities Inc. (the "Agent"). In connection with the Offering, the Agent will be paid a cash commission equal to 7.0% of the gross proceeds of the Offering and it will be issued that number of non-transferable broker warrants exercisable for Common Shares equal to 7.0% of the number of Units sold in the Offering (in each case excluding any Units sold to certain excluded subscribers).

A preliminary short form prospectus in respect of the Offering dated June 8, 2017 (the "**Preliminary Prospectus**") has been filed in each of the provinces of Ontario, British Columbia and Alberta pursuant to National Instrument 44-101 - *Short Form Prospectus Distributions*. In addition, the Units may also be offered for sale in the United States, by or through a United States registered broker-dealers appointed by the Agent as sub-agents, and in certain offshore jurisdictions, in each case under available exemptions from the prospectus and registration requirements of applicable securities laws. The Company intends to file an amended and restated preliminary short form prospectus with the securities regulatory authorities in each of the provinces of Ontario, British Columbia and Alberta, to provide additional details concerning the Offering, including pricing information (the "Amended and Restated Preliminary Prospectus").

The net proceeds of the Offering (the "Net Proceeds") will be used to fund continued development work in connection with the Company's SPORT Surgical System, as well as for working capital and other general corporate purposes. Please see "Use of Proceeds" in the Preliminary Prospectus, which is available under the Company's profile at www.sedar.com, for further details of the use of net proceeds from the Offering.

The Common Shares are listed on the TSX under the symbol "TMD". An application will be made to list the Common Shares issuable under the Offering for trading on the TSX. Listing will be subject to the Company fulfilling all of the requirements of the TSX.

#### About Titan Medical Inc.

Titan Medical Inc. is a Canadian public company focused on research and development through to the planned commercialization of computer-assisted robotic surgical technologies for application in minimally invasive surgery ("MIS"). The Company is currently developing the SPORT Surgical System, a single-port robotic surgical system. The SPORT Surgical System is comprised of a surgeon-controlled patient cart that includes a 3D high definition vision system and multi-articulating instruments for performing MIS procedures, and a surgeon workstation that provides the surgeon with an advanced ergonomic interface to the patient cart and a 3D endoscopic view inside the patient's body during MIS procedures. With the SPORT Surgical System, the Company aims to pursue a broad set of surgical indications, including general abdominal, gynecologic and urologic procedures.

For more information, please visit the Company's website at www.titanmedicalinc.com.

#### Forward-Looking Statements

This press release contains "forward-looking statements" which reflect the current expectations of management of the Company, including with respect to the intended use of the Net Proceeds. Such statements include, but are not limited to, statements regarding receipt of applicable regulatory approvals and the timing thereof, the filing of the Amended and Restated Preliminary Prospectus, the anticipated date of Closing, the listing of the Common Shares on the TSX and the proposed use of the Net Proceeds. Wherever possible, words such as "may", "would", "could", "will", "anticipate", "plan", "expect", "intend", "estimate", "potential for" and similar expressions have been used to identify these forward-looking statements. These statements reflect management's current beliefs with respect to future events and are based on information currently available to management. Forward-looking statements involve significant risks, uncertainties and assumptions. Many factors could cause the Company's actual results, performance or achievements to be materially different from any future results, performance or achievements and mare based or information form dated March 31, 2017 (which may be viewed at <u>www.sedar.com</u>). Should one or more of these risks or uncertainties materialize, or should assumptions underlying the forward-looking statements may vary materially from those expressed or implied by the forward-looking statements results should be considered carefully and prospective investors should not place undue reliance on the forward-looking statements. Although the forward-looking statements contained in the news release are based upon what management currently believes to be reasonable assumptions, the Company cannot assure prospective investors that actual results, performance or achievements will be consistent with these forward-looking statements.

#### **U.S. Securities Law Caution**

The securities described herein have not been, and will not be, registered under the United States Securities Act of 1933, as amended (the **'U.S. Securities Act**''), or any state securities laws, and accordingly, may not be offered or sold to, or for the account or benefit of, persons in the United States or "U.S. persons," as such term is defined in Regulation S promulgated under the U.S. Securities Act (**''U.S. Persons**''), except in compliance with the registration requirements of the U.S. Securities Act and applicable state securities requirements or pursuant to exemptions therefrom. This press release does not constitute an offer to sell or a solicitation of an offer to buy any of the Company's securities to, or for the account or benefit of, persons in the United States or U.S. Persons.

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#### AGENCY AGREEMENT

June 26, 2017

Titan Medical Inc. 170 University Avenue, Suite 1000 Toronto, Ontario M5H 3B3

#### Attention: David J. McNally, President and Chief Executive Officer

Dear Sir:

Bloom Burton Securities Inc. (the "Agent") understands that Titan Medical Inc. (the "Corporation") proposes to issue and sell a minimum of 46,666,666 units of the Corporation (the "Offered Units") and up to a maximum of 100,000,000 Offered Units at a price of \$0.15 per Offered Unit) (the 'Offering Price") for aggregate gross proceeds of a minimum of approximately \$7,000,000 (the "Minimum Offering") and a maximum of \$15,000,000 (the "Maximum Offering"). Each Offered Unit shall consist of (i) one Common Share (as defined herein) (a "Unit Share") and (ii) one Common Share purchase warrant (a "Warrant"), each Warrant entitling the holder thereof to purchase one Common Share (a "Warrant Share") at an exercise price of \$0.20 per Warrant Share, subject to adjustment, at any time until 5:00 p.m. (Toronto time) on the date that is 60 months after the Initial Closing Date (as defined herein). The offering of the Offered Units by the Corporation is hereinafter referred to as the "Offering".

The Corporation wishes to appoint the Agent to act as its exclusive agent, and to effect the sale of the Offered Units on a best efforts basis. The Agent shall be entitled to appoint a soliciting dealer group consisting of other registered dealers acceptable to the Corporation (each, a "Selling Firm") for the purpose of arranging for purchases of the Offered Units.

It is further understood and agreed that the Corporation shall be entitled to offer and sell Offered Units sold pursuant to the Offering to certain subscribers on a president's list or other excluded subscribers and settling directly with the Corporation (the "**President's List Subscribers**"); provided, however, that (i) the Agent and any Selling Firm shall not be required to conduct a suitability review in respect of sales by the Corporation of Offered Units to any President's List Subscriber; (ii) the Agent and any Selling Firm shall not be obligated, and may, in their sole discretion, refuse to process any subscription for Offered Units from any President's List Subscriber, and (iii) the Corporation shall indemnify and save harmless the Agent, any Selling Firm and any Indemnified Party (as hereinafter defined) for and against all losses relating to any sales of Offered Units by the Corporation to any President's List Subscriber.

In consideration of the Agent's services hereunder, the Corporation agrees to pay to the Agent on each Closing Date a fee (the "Agency Fee") equal to 7.0% of the gross proceeds realized by the Corporation in respect of the sale of the Offered Units (excluding any Offered Units sold to any President's List Subscriber) on such Closing Date. Proceeds raised through the sale of Offered Units to President's List Subscribers will not be subject to any commission and will in no way make up the Agency Fee. As additional consideration for its services performed under this Agreement (as hereinafter defined), the Corporation shall issue to the Agent, on each Closing Date (in such name or names as the Agent may direct in writing) compensation warrants (the "Compensation Warrants") exercisable to acquire that number of Common Shares as is equal to 7.0% of the Offered Units sold under the Offering (excluding any Offered Units sold to any President's List Subscriber) on such Closing Date at an exercise price equal to the Offering Price at any time before 5:00 p.m. (Toronto time) on the date that is 24 months following the Initial Closing Date.

The obligation of the Corporation to pay the Agency Fee and to issue the Compensation Warrants shall arise at the Closing Time (as hereinafter defined) against payment for the Offered Units, and the Agency Fee and the Compensation Warrants shall be fully earned by the Agent at such time.

The completion of the Offering may occur in one or more separate closings on one or more dates (each, a 'Closing Date') as the Company and the Agent may agree. Provided that the Minimum Offering is subscribed for, it is expected that the Initial Closing Date of the Offering will occur on or about June 29, 2017, or such earlier or later date as the Company and the Agent may agree.

If subscriptions for the Minimum Offering have not been received within 10 days following the date of issuance of a receipt for the Final Prospectus, the Offering will not continue and the subscription proceeds will be returned to subscribers, without interest or deduction. In any event, the total period of the distribution will not end more than 30 days from the date of issuance of a receipt for the Final Prospectus. Should a closing occur in respect of the Minimum Offering, one or more additional closings, if necessary, may occur until the earlier of the Maximum Offering being subscribed and the expiry of the 30 day period.

It is understood that the Offered Units will be offered to Purchasers (as hereinafter defined) resident in: (i) the Provinces of British Columbia, Alberta and Ontario (collectively, the "**Canadian Selling Jurisdictions**"); and (ii) jurisdictions other than the Canadian Selling Jurisdictions as may mutually be agreed to by the Corporation and the Agent, including the United States in accordance with Schedule B hereto (collectively with the Canadian Selling Jurisdictions, the "**Selling Jurisdictions**"), on a private placement basis, provided that the Corporation is not required to file a prospectus, registration statement or other disclosure document or become subject to continuing obligations in such other jurisdictions, in each case in accordance with the provisions of this Agreement. With respect to the offer or sale of any Offered Units in the United States, the parties to this Agreement acknowledge and agree that the Agent may appoint duly registered U.S. broker-dealers (each, a "U.S. Selling Group Member") to act as sub-agents to conduct offers and sales of the Offered Securities in the United States or to, or for the account or benefit of, persons in the United States or U.S. Persons (as defined herein).

#### DEFINITIONS

Unless expressly provided otherwise, where used in this Agreement, the following terms shall have the following meanings:

"affiliate", "associate", "material change", "material fact" and "misrepresentation" shall have the respective meanings ascribed thereto under Applicable Securities Laws of the Canadian Selling Jurisdictions;

"Agency Fee" has the meaning ascribed thereto in the fourth paragraph of this Agreement;

"Agent" has the meaning ascribed thereto in the first paragraph of this Agreement;

"Agreement" means the agreement resulting from the acceptance by the Corporation of the offer made hereby;

"Applicable IP Laws" means, with respect to a specific Intellectual Property, all applicable federal, provincial, state and local laws and regulations applicable to that Intellectual Property in the countries where rights in such Intellectual Property arise, the countries including Canada, the United States, the European Union and the jurisdictions in which the Corporation has registered Intellectual Property; "Applicable Laws" means all applicable federal, provincial, state and local laws and regulations of authorities having jurisdiction over the Corporation or the Agent, as applicable;

"Applicable Securities Laws" means, collectively, the applicable securities laws of the Canadian Selling Jurisdictions, the regulations, rules, rulings and orders made thereunder, the applicable published policy statements issued by the applicable securities commissions thereunder, the rules and policies of the TSX and the OTCQB and the securities legislation and published policies of each Selling Jurisdiction;

"Applied for Corporation IP" means all Corporation IP that is the subject of an application with a national intellectual property office (including, without limitation, the CIPO and the USPTO);

"Audited Financial Statements" means the audited financial statements of the Corporation as at and for the years ended December 31, 2016 and 2015;

"Business Day" means a day which is not a Saturday, Sunday or statutory or civic holiday in the City of Toronto, Ontario;

"Canadian Securities Regulators" means, collectively, the applicable securities commission or securities regulatory authority in each of the Canadian Selling Jurisdictions;

"Canadian Selling Jurisdictions" has the meaning ascribed thereto in the sixth paragraph of this Agreement;

"CDS" has the meaning ascribed thereto in Section 8;

"CIPO" means the Canadian Intellectual Property Office;

"Claims" has the meaning ascribed thereto in Section 12;

"Closing" means the Initial Closing or any Subsequent Closing, as the case may be;

"Closing Date" means June 29, 2017, and each Subsequent Closing Date;

"Closing Time" means 8:00 a.m. (Toronto time) on the Closing Date or such other time on the Closing Date as the Corporation and the Agent may agree;

"Common Shares" means the common shares in the capital of the Corporation, which the Corporation is authorized to issue, as constituted on the date hereof;

"comparables" has the meaning ascribed thereto in NI 41-101;

"Compensation Warrants" has the meaning ascribed thereto in the fourth paragraph of this Agreement;

"Compensation Warrant Certificates" means the certificates representing the Compensation Warrants; "Corporation" has the meaning ascribed thereto in the first paragraph of this Agreement;

"Corporation's Auditors" means BDO Canada LLP, Chartered Accountants, or such other firm of chartered accountants as the Corporation may have appointed or may from time to time appoint as auditors of the Corporation;

-4-

"Corporation IP" means the Intellectual Property identified in Schedule "C" and Schedule "D" to this Agreement;

"Disclosure Record" means, without limitation, all information contained in any press releases, material change reports, financial statements, prospectuses, annual and quarterly reports or other document of the Corporation which has been publicly filed on SEDAR by, or on behalf of, the Corporation pursuant to Applicable Securities Laws of the Canadian Selling Jurisdictions;

"Distribution" means "distribution" or "distribution to the public" as those terms are defined under Applicable Securities Laws of the Canadian Selling Jurisdictions;

"Documents Incorporated by Reference" means all financial statements, management's discussion and analysis, management information circulars, annual information forms, material change reports or other documents issued by the Corporation, whether before or after the date of this Agreement, that are required by NI 44-101 to be incorporated by reference into the Prospectus or any Prospectus Amendment;

"Due Diligence Session" has the meaning ascribed thereto in subsection 6(a);

"Eligible Issuer" means an issuer that meets the criteria and has complied with the requirements of NI 44-101 so as to allow it to offer its securities using a short form prospectus;

"Environmental Laws" has the meaning ascribed thereto in subsection 7(ii);

"FDA" means the U.S. Food and Drug Administration of the U.S. Department of Health & Human Services;

"Final Prospectus" means the (final) short form prospectus of the Corporation, including all of the Documents Incorporated by Reference, to be dated on or about the date hereof relating to the Distribution of the Units and for which a receipt will have been issued by the Ontario Columbia Securities Commission, as principal regulator, the British Columbia Securities Commission and the Alberta Securities Commission;

"Final Receipt" means a receipt or deemed receipt for the Final Prospectus issued by the Securities Regulators;

"Financial Statements" means the Audited Financial Statements and the Interim Financial Statements;

"Indemnified Party" has the meaning ascribed thereto in Section 12;

"Initial Closing" means the completion of the initial issue and sale by the Corporation of the Units and Compensation Warrants pursuant to this Agreement;

"Initial Closing Date" means June 29, 2017 or such other date as may be agreed upon between the Corporation and the Agent for the Initial Closing that is not later than 30 days after the Final Receipt is issued;

"Intellectual Property" means all copyrights, patents, patent rights, industrial designs, know-how (including trade secrets and other unpatented or unpatentable proprietary or confidential information, systems or procedures);

"Interim Financial Statements" means the unaudited condensed interim financial statements of the Corporation as at and for the three month period ended March 31, 2017 and 2016;

"knowledge" means, as it pertains to the Corporation, the actual knowledge, after due inquiry, of the President and Chief Executive Officer, the Chief Financial Officer and, in the case of matters relating to Corporation IP and Licensed IP, the employee of the Corporation that is the most responsible for directing such matters;

"Leased Premises" has the meaning ascribed thereto in subsection 7(ll);

"Licensed IP" means the Intellectual Property owned by any person other than the Corporation and to which the Corporation has a license which has not expired or been terminated, including the Intellectual Property identified in Schedule "E";

"marketing materials" has the meaning ascribed thereto in NI 41-101;

"Material Adverse Effect" means any change, event, violation, inaccuracy, circumstance or effect that is materially adverse to the business, assets (including intangible assets), capitalization, financial condition or results of operations of the Corporation, whether or not arising in the ordinary course of business;

"Material Agreement" means any "material contract" filed on SEDAR by the Corporation pursuant to NI 51-102;

"Material Permits" has the meaning ascribed thereto in subsection 7(qq);

"Minimum Offering" has the meaning ascribed thereto in the first paragraph of this Agreement;

"NI 41-101" means National Instrument 41-101 - General Prospectus Requirements; "

NI 44-101" means National Instrument 44-101 – Short Form Prospectus Distributions;

"NI 51-102" means National Instrument 51-102 - Continuous Disclosure Obligations;

"Notice" has the meaning ascribed thereto in Section 17;

"Offered Units" has the meaning ascribed thereto in the first paragraph of this Agreement;

"Offering" has the meaning ascribed thereto in the first paragraph of this Agreement; 'Offering Documents" has the meaning ascribed to such term in subsection 5(a)(iii);

"Offering Price" has the meaning ascribed thereto in the first paragraph of this Agreement;

"person" shall be interpreted broadly and shall include any individual, corporation, partnership, joint venture, association, trust or other legal entity;

"Preliminary Prospectus" means the preliminary short form prospectus of the Corporation, including all of the Documents Incorporated by Reference, dated June 8, 2017 relating to the Distribution of the Units and for which a receipt has been issued by the Ontario Columbia Securities Commission, as principal regulator, the British Columbia Securities Commission and the Alberta Securities Commission;

"President's List Subscribers" has the meaning ascribed thereto in the third paragraph of this Agreement;

"Prospectus" means, collectively, the Preliminary Prospectus, the Final Prospectus and any amendments thereto;

"Prospectus Amendment" means any amendment or supplement to the Prospectus;

"Purchasers" means any persons who acquire Offered Units at the Closing Time;

"Registered Corporation IP" means all Corporation IP that is the subject of a registration with a national intellectual property office (including, without limitation, the CIPO and the USPTO);

"Regulatory Authority" means the statutory or governmental bodies authorized under Applicable Laws to protect and promote public health through regulation and supervision of therapeutic drug candidates intended for use in humans, including, without limitation, the FDA and Health Canada and any other regulatory or governmental agency having jurisdiction over the Corporation or its activities;

"Securities Regulators" means the applicable securities regulatory authorities in the Selling Jurisdictions, including, without limitation, the Canadian Securities Regulators and the TSX;

"SEDAR" means the system for electronic document analysis and retrieval operated by the Canadian Securities Administrators;

"Selling Firm" has the meaning ascribed thereto in the second paragraph of this Agreement;

"Selling Jurisdictions" has the meaning ascribed thereto in the sixth paragraph of this Agreement;

"Standard Listing Conditions" has the meaning ascribed thereto in subsection 4(a)(iv);

"standard term sheet" has the meaning ascribed thereto in NI 41-101;

"Subsequent Closing" has the meaning set out in Section 8;

"Subsequent Closing Date" means such date as may be agreed upon between the Corporation and the Agent for the Subsequent Closing but in any event shall be not later than the date that is 30 days after the Final Receipt is issued;

"Taxes" has the meaning ascribed thereto in subsection 7(j);

"template version" has the meaning ascribed thereto in NI 41-101;

"Transfer Agent" means Computershare Investor Services Inc.;

"TSX" means the Toronto Stock Exchange;

"TSX Letter" has the meaning ascribed thereto in subsection 4(a)(iv);

"TSX Manual" means the TSX Company Manual;

"Unit Shares" has the meaning ascribed thereto in the first paragraph of this Agreement;

"United States" or "U.S." means the United States of America, its territories and possessions, any state of the United States, and the District of Columbia;

"USPTO" means the United States Patent and Trademark Office;

"U.S. Exchange Act" means the United States Securities and Exchange Act of 1934, as amended;

"U.S. Memorandum" has the meaning ascribed thereto in subsection 4(a)(iii);

"U.S. Person" means a "U.S. person" as such term is defined in Regulation S under the U.S. Securities Act;

"U.S. Securities Act" means the U.S. Securities Act of 1933, as amended;

"U.S. Selling Group Member" and "U.S. Selling Group Members" have the meanings ascribed thereto in the sixth paragraph of this Agreement;

"Warrant Indenture" means the warrant Indenture between the Corporation and Computershare Trust Company of Canada, in its capacity as warrant agent, governing the Warrants;

"Warrant Share" has the meaning ascribed thereto in the first paragraph of this Agreement; and

"Warrant" has the meaning ascribed thereto in the first paragraph of this Agreement.

The following are the schedules attached to this Agreement, which schedules are deemed to be a part hereof and are hereby incorporated by reference herein:

| Schedule "A" | - | Convertible Securities                        |
|--------------|---|-----------------------------------------------|
| Schedule "B" | - | Compliance with United States Securities Laws |
| Schedule "C" | - | Corporation IP                                |
| Schedule "D" | - | Licensor Contracts                            |
| Schedule "E" | - | Licensing Agreements                          |

#### TERMS AND CONDITIONS

#### 1. Nature of the Transaction

Based upon the foregoing and subject to the terms and conditions set out below, the Corporation hereby appoints the Agent to act as its exclusive agent, and the Agent hereby accepts such appointment, to effect the sale of the Offered Units for an aggregate purchase price of a minimum amount equal to the Minimum Offering and up to a maximum amount equal to the Maximum Offering, on a best efforts basis to persons resident in the Selling Jurisdictions. The Agent agrees to use its best efforts to sell the Offered Units, but it is hereby understood and agreed that the Agent shall act as agent only and is under no obligation to purchase any of the Offered Units, although the Agent may subscribe for the Offered Units if it so desires. The Offering will be subject to subscriptions being received for the Minimum Offering. All funds received by the Agent will be held in trust until the Minimum Offering has been attained. Notwithstanding any other term of this Agreement, all subscription funds received by the Agent will be returned to the Purchasers if the Minimum Offering is not attained by the Closing Time.

Until the Closing or termination of this Agreement, the Corporation and Agent shall approve in writing (prior to such time that marketing materials are provided to potential investors) any marketing materials reasonably requested to be provided by the Agent to any potential investor of Offered Units, such marketing materials to comply with Applicable Securities Laws of the Canadian Selling Jurisdictions. The Agent shall provide a copy of any marketing materials used in connection with the Offering, to the Corporation in accordance with this Section 1. The Corporation shall file a template version and any revised template version of such marketing materials with the Canadian Securities Regulators as soon as reasonably practicable after such marketing materials are so approved in writing by the Corporation and the Agent, and in any event on or before the day the marketing materials are first provided to any potential investor of Offered Units, and such filing shall constitute the Agent's authority to use such marketing materials in connection with the Offering. Any comparables shall be redacted from the template version in accordance with NI 44-101 prior to filing such template version with the Canadian Securities Regulators and a complete template version containing such comparables and any disclosure relating to the comparables, if any, shall be delivered to the Canadian Securities Regulators by the Corporation.

The Corporation and the Agent, on a several basis, covenant and agree:

- (a) not to provide any potential investor of Offered Units with any marketing materials unless a template version of such marketing materials has been filed by the Corporation with the Canadian Securities Regulators on or before the day such marketing materials are first provided to any potential investor of Offered Units;
- (b) not to provide any potential investor with any materials or information in relation to the Distribution of the Offered Units or the Corporation other than: (i) such marketing materials that have been approved and filed in accordance with this Section 1; (ii) the Prospectus and any Prospectus Amendments; and (iii) any standard term sheets approved in writing by the Corporation and the Agent; and
- (c) that any marketing materials approved and filed in accordance with this Section 1 and any standard term sheets approved in writing by the Corporation and the Agent shall only be provided to potential investors in the Selling Jurisdictions where the provision of such marketing materials or standard term sheets does not contravene Applicable Securities Laws.

#### 2. Final Prospectus

The Corporation shall use commercially reasonable best efforts to file a Final Prospectus in each of the Canadian Selling Jurisdictions not later than 10:45 p.m. (Toronto time) on June 26, 2017.

Until the date on which the Distribution of the Offered Units is completed, the Corporation will promptly take, or cause to be taken, all additional steps and proceedings that may from time to time be required or desirable under Applicable Securities Laws of the Canadian Selling Jurisdictions to continue to qualify the Distribution of the Offered Units and the Compensation Warrants, or, in the event that the Offered Units and the Compensation Warrants have, for any reason, ceased to so qualify, to so qualify again the Offered Units and the Compensation Warrants for Distribution in the Canadian Selling Jurisdictions.

#### 3. Covenants and Representations of the Agent

(a) The Agent has complied and will comply, and shall require any other Selling Firm with which the Agent has a contractual relationship in respect of the Distribution of the Offered Units (including, for the avoidance of doubt, the U.S. Selling Group Members) to comply, with Applicable Securities Laws in connection with the Distribution of the Offered Units including the U.S. selling restrictions imposed by the laws of the United States and set forth in Schedule "B" to this Agreement, shall ensure that each Selling Firm agrees to comply with the covenants and obligations given by the Agent herein, to the extent applicable, and shall offer the Offered Units for sale to the public in the Selling Jurisdictions directly and through Selling Firms upon the terms and conditions set out in the Prospectus and this Agreement. The Agent agrees to obtain such an agreement of each Selling Firm. The Agent has offered and will offer, and shall require any Selling Firm to offer, for sale to the public and sell the Offered Units only in those jurisdictions where they may be lawfully offered for sale or sold.

- (b) The Agent shall, and shall require any Selling Firm to agree to, distribute the Offered Units in a manner which complies with and observes all Applicable Laws in each jurisdiction into and from which they may offer to sell Offered Units or distribute the Prospectus or any Prospectus Amendment in connection with the Distribution of the Offered Units and will not, directly or indirectly, offer, sell or deliver any Offered Units or deliver the Prospectus or any Prospectus Amendment to any person in any jurisdiction other than in the Canadian Selling Jurisdictions except in a manner which will not require the Corporation to comply with the registration, prospectus, filing or other similar requirements under the Applicable Laws relating to securities of such other jurisdictions.
- (c) For the purposes of this Section 3, the Agent shall be entitled to assume that the Units are qualified for Distribution in any Canadian Selling Jurisdiction where a receipt for the Final Prospectus shall have been obtained from the Ontario Columbia Securities Commission, as principal regulator, the British Columbia Securities Commission and the Alberta Securities Commission.
- (d) The Agent shall use all reasonable efforts to complete the Distribution of the Offered Units pursuant to the Prospectus as early as practicable and the Agent shall advise the Corporation in writing when, in the opinion of the Agent, the Agent has completed the Distribution of the Offered Units and within 25 days of the Closing Date provide a breakdown of the number of Offered Units distributed and proceeds received in each of the Canadian Selling Jurisdictions where such breakdown is required for the purpose of calculating fees payable to the Canadian Securities Regulators.
- (e) The Agent shall deliver a copy of the Prospectus and any Prospectus Amendment to each Purchaser.
- (f) The Agent represents and warrants to the Corporation and acknowledges that the Corporation is relying upon such representations and warranties in entering into this Agreement that:
  - (i) it is a valid and subsisting corporation, duly incorporated and in good standing under the laws of the jurisdiction in which it was incorporated;
  - (ii) it holds all licenses and permits that are required for carrying on its business in the manner in which such business has been carried on;

- (iii) it has good and sufficient right and authority to enter into this Agreement and complete the transactions contemplated under this Agreement on the terms and conditions set forth herein;
- (iv) all information reasonably requested by the Agent and its counsel in connection with the due diligence investigations of the Agent will be treated by the Agent and its counsel as confidential and will only be used in connection with the Offering; and
- (v) it is an appropriately registered investment dealer under provincial securities laws, rules and regulations of the Canadian Selling Jurisdictions so as to permit it to lawfully fulfil its obligations hereunder.
- (g) The representations and warranties of the Agent contained in this Agreement shall be true at the Closing Time and they shall survive the completion of the transactions contemplated under this Agreement until the third anniversary of the Closing Date.

The Corporation understands and agrees that the Agent may arrange for Purchasers of the Offered Units in jurisdictions other than Canada and the United States, on a private placement basis and provided that the purchase of such Offered Units does not contravene the Applicable Securities Laws of the jurisdiction where the Purchaser is resident and provided that such sale does not trigger: (i) any obligation to prepare and file a prospectus, registration statement or similar disclosure document; or (ii) any registration or other obligation on the part of the Corporation including, but not limited to, any continuing obligation in that jurisdiction.

#### 4. Deliveries

- (a) The Corporation shall deliver, or cause to be delivered to the Agent, without charge:
  - (i) on the date hereof, a copy of the Preliminary Prospectus and the Final Prospectus, each signed and certified as required by Applicable Securities Laws;
  - (ii) contemporaneously with the filing of the Final Prospectus, a copy of any other document required to be filed or that is otherwise delivered by the Corporation in respect of the Offering under the laws of each of the Selling Jurisdictions in compliance with Applicable Securities Laws, to the extent not available on SEDAR;
  - (iii) the private placement memorandum incorporating the Prospectus prepared for use in connection with the Offering for the sale of the Offered Units in the United States (the "**U.S. Memorandum**"), and, forthwith after preparation, any amendment to the U.S. Memorandum;
  - (iv) prior to the filing of the Final Prospectus, copies of correspondence indicating that the application for the listing and posting for trading on the TSX of the Unit Shares and the Warrant Shares (upon exercise of the Warrants) issuable in connection with the Offering (including, for greater certainty, Common Shares issued in connection with the exercise of the Compensation Warrants) have been approved for listing subject only to satisfaction by the Corporation of certain standard post-Closing conditions imposed by the TSX (the "Standard Listing Conditions"), as shall be set out in the TSX conditional approval letter in respect of the Offering (the "TSX Letter"), and which Standard Listing Conditions shall, for the avoidance of doubt, exclude any requirement for shareholder approval; and

(v) contemporaneously with, or prior to, the filing of the Final Prospectus, a "long form" comfort letter dated the date of the Final Prospectus, in form and substance satisfactory to the Agent, addressed to the Agent from the Corporation's Auditors with respect to financial and accounting information relating to the Corporation contained in the Prospectus, which letter shall be based on a review by the Corporation's Auditors within a cut-off date of not more than two Business Days prior to the date of the letter, which letter shall be in addition to the Corporation's Auditors consent letter addressed to the Canadian Securities Regulators.

Prior to the filing of any Prospectus Amendment with the Securities Regulators, the Corporation shall deliver, or cause to be delivered, to the Agent a copy of such Prospectus Amendment signed and certified as required by Applicable Securities Laws of the Canadian Selling Jurisdictions. Concurrently with the delivery of any Prospectus Amendment, the Corporation shall deliver to the Agent and the Agent's counsel, with respect to such Prospectus Amendment, opinions, comfort letters and such other documentation substantially equivalent or similar to those referred to in this Section 4, as appropriate or reasonably requested by the Agent in the circumstances.

- (b) Delivery of the Prospectus and any Prospectus Amendment shall constitute a representation and warranty by the Corporation to the Agent that, as at the date of the Prospectus or Prospectus Amendment, as the case may be: (i) all information and statements (except information and statements relating solely to the Agent and provided by the Agent) contained in the Prospectus and any Prospectus Amendments are true and correct in all material respects and contain no misrepresentation and constitute full, true and plain disclosure of all material facts relating to the Corporation and the Offered Units; (ii) no material fact or information has been omitted from such disclosure (except facts or information relating solely to the Agent and provided by the Agent) which is required to be stated in such disclosure or is necessary to make the statements or information contained in such disclosure not misleading in light of the circumstances under which they were made; (iii) such documents comply in all material respects with the requirements of the Applicable Securities Laws of the Canadian Selling Jurisdictions; and have been filed (and a receipt therefor will be obtained, if required) in each of the Canadian Selling Jurisdictions; and (iv) except as set forth or contemplated in the Prospectus or any Prospectus Amendment or as has otherwise been publicly disclosed, there has been no adverse material change (actual, anticipated, contemplated, proposed or threatened) in the business, affairs, business prospects, operations, assets, liabilities (contingent or otherwise), capital or ownership of the Corporation since the end of the period covered by the Financial Statements. Such deliveries shall also constitute the Corporation's consent to the use by the Agent and any Selling Firm of the Prospectus and any Prospectus Amendment in connection with the Distribution of the Offered Units in the Selling Jurisdictions in compliance with this Agreement and Applicable Securities Laws.
- (c) The Corporation shall cause commercial copies of the Prospectus and the U.S. Memorandum to be delivered to the Agent without charge, in such numbers and in such cities as the Agent may reasonably request. Such delivery shall be effected as soon as possible and, in any event, no later than 5:00 p.m. (Toronto time) on June 27, 2017 or such other date and time as may be agreed upon by the Agent and the Corporation.

#### Material or Significant Change During Distribution

5.

- (a) During Distribution of the Offered Units under the Prospectus, the Corporation shall promptly notify the Agent in writing of:
  - (i) any material change with respect to the Corporation;
  - (ii) any material fact which has arisen or has been discovered and would have been required to have been stated in the Prospectus had the fact arisen or been discovered on, or prior to, the date of the Prospectus; and
  - (iii) any change in any material fact or matter covered by a statement contained in the Prospectus or any Prospectus Amendment (collectively, the "Offering Documents") which change is, or may be, of such a nature as to render any of the Offering Documents misleading or untrue or which would result in a misrepresentation in any of the Offering Documents or which would result in the Prospectus or any Prospectus Amendment not complying with the Applicable Securities Laws or other laws of any Canadian Selling Jurisdiction.
- (b) The Corporation will comply with Section 57 of the Securities Act (Ontario) and with the comparable provisions of other Applicable Securities Laws in the Canadian Selling Jurisdictions, and the Corporation will prepare and will file any Prospectus Amendment, which, in the opinion of the Agent and its counsel, acting reasonably, may be necessary to continue to qualify the Offered Units and Compensation Warrants for Distribution in each of the Canadian Selling Jurisdictions.
- (c) In addition to the provisions of subsections 5(a) and 5(b), the Corporation shall, in good faith, discuss with the Agent any fact or change in circumstances (actual, anticipated, contemplated, proposed or threatened, financial or otherwise) which is of such a nature that there is reasonable doubt whether written notice need be given under this section and shall consult with the Agent with respect to the form and content of any amendment or other Prospectus Amendment proposed to be filed by the Corporation, it being understood and agreed that no such amendment or other Prospectus Amendment shall be filed with any Securities Regulator prior to the review thereof by the Agent and its counsel, acting reasonably.

#### 6. Covenants of the Corporation

The Corporation hereby covenants to the Agent that the Corporation:

(a) shall prior to the Closing Time, allow the Agent (and its counsel and consultants) to conduct all due diligence which the Agent may reasonably require or consider necessary or appropriate in order to fulfill the Agent's obligations as registrants to complete the Offering as provided herein. The Corporation will provide to the Agent (and its counsel and consultants) reasonable access to the Corporation's properties (if any), senior management personnel and corporate, financial and other records, for the purposes of conducting such due diligence. Without limiting the scope of the due diligence inquiry the Agent (or its counsel and consultants) may conduct, the Corporation shall also make available its directors, senior management and counsel to answer any questions which the Agent may have and to participate in one or more due diligence sessions to be held prior to Closing (collectively, the "Due Diligence Session"). The Agent shall distribute a list of written questions in advance of each Due Diligence Session;

- (b) shall forthwith advise the Agent of, and provide the Agent with copies of, any written communications relating to:
  - the issuance by any securities regulatory authority, including the TSX, of any order suspending or preventing the use of the Prospectus or any Prospectus Amendment or any cease trading or stop order or any halt in trading relating to the Common Shares or the institution or threat of any proceedings for that purpose; and
  - the receipt of any material communication from any securities regulatory authority, including the TSX, or other authority relating to the Prospectus or any Prospectus Amendment or the Offering;
- (c) shall use its commercially reasonable best efforts to prevent the issuance of any order referred to in (b)(i) above and, if issued, shall forthwith take all reasonable steps which it is able to take and which may be necessary or desirable in order to obtain the withdrawal thereof as soon as is reasonably practicable;
- (d) shall use its commercially reasonable best efforts to maintain its status as a "reporting issuer" (or the equivalent thereof) not in default of the requirements of the Applicable Securities Laws of each of the Canadian Selling Jurisdictions for as long as any Warrants remain outstanding, other than in a business combination or similar transaction where all the outstanding securities of the Corporation have been exchanged for cash or the securities of another issuer which is a reporting issuer under any Applicable Securities Laws;
- (e) shall use its commercially reasonable best efforts to maintain the listing of the Common Shares on the TSX and the OTCQB or such other recognized stock exchange or quotation system as the Agent may approve, acting reasonably, for as long as any Warrants remain outstanding, other than in a business combination or similar transaction where all the outstanding securities of the Corporation have been exchanged for cash or the securities of another issuer which is a reporting issuer under any Applicable Securities Laws;
- (f) shall use its commercially reasonable efforts to ensure that the Unit Shares and the Warrant Shares (including for greater certainty any Common Shares underlying the Compensation Warrants) will be conditionally approved for listing on the TSX upon their issue;
- (g) shall use the net proceeds of the Offering contemplated herein in the manner and subject to the qualifications described in the Prospectus Supplement under the heading "Use of Proceeds"; and
- (h) shall, as soon as practicable, use its commercially reasonable efforts to receive all necessary consents to the transactions contemplated herein.

#### 7. Representations, Warranties and Covenants of the Corporation

The Corporation hereby represents and warrants to the Agent that as at the date hereof:

- (a) the Corporation has been duly incorporated, continued or amalgamated and is validly existing under the laws of its governing jurisdiction, has all requisite power and authority and is duly qualified to carry on its business as now conducted and to own or lease its properties and assets and the Corporation has all requisite corporate power and authority to carry out its obligations under this Agreement, the Warrant Indenture (upon execution and delivery thereof), the Compensation Warrant Certificates (upon execution and delivery thereof) and any other document, filing, instrument or agreement delivered in connection with the Offering, and to carry out its obligations hereunder;
- (b) no agreement is in force or effect which in any manner affects the voting or control of any of the securities of the Corporation to which the Corporation is a party or of which the Corporation is aware;
- (c) the Corporation does not beneficially own, or exercise control or direction over, 10% or more of the outstanding voting shares of any company;
- (d) all consents, approvals, permits, authorizations or filings as may be required under Applicable Securities Laws necessary for the execution and delivery of this Agreement and the sale of the Offered Units, and the consummation of the transactions contemplated hereby, have been made or obtained or will be obtained prior to the Closing Date, as applicable, subject only to the Standard Listing Conditions contained in the TSX Letter and any post-Closing notice filings required under applicable United States federal or state securities laws and standard post-closing filings with the Canadian Securities Regulators;
- (e) upon the execution and delivery thereof, each of this Agreement, the Warrant Indenture and the Compensation Warrant Certificates shall constitute a valid and binding obligation of the Corporation and each shall be enforceable against the Corporation in accordance with its terms, except as enforcement thereof may be limited by bankruptcy, insolvency, reorganization, moratorium and other laws relating to or affecting the rights of creditors generally and except as limited by the application of equitable principles when equitable remedies are sought, and by the fact that rights to indemnity, contribution and waiver, and the ability to sever unenforceable terms, may be limited by Applicable Law;
- (f) the currently issued and outstanding Common Shares are listed and posted for trading on the TSX and on the OTCQB and no order ceasing or suspending trading in the Common Shares or prohibiting the trading of any of the Common Shares has been issued and no proceedings for such purpose are pending or, to the knowledge of the Corporation, threatened;
- (g) the definitive form of certificate representing the Common Shares complies with the requirements of the *Business Corporations Act* (Ontario), complies with the requirements of the TSX Manual and does not conflict with the constating documents of the Corporation;
- (h) the Financial Statements:

- (i) have been prepared in accordance with international financial reporting standards in Canada consistently applied throughout the period referred to therein;
- contain no misrepresentation and present fairly, in all material respects, the financial position (including the assets and liabilities, whether absolute, contingent or otherwise) of the Corporation as at such dates and results of operations of the Corporation for the periods then ended; and
- (iii) contain and reflect adequate provision or allowance for all reasonably anticipated liabilities, expenses and losses of the Corporation,

and there has been no change in accounting policies or practices of the Corporation since December 31, 2015;

- the Corporation has not declared or paid any dividends or declared or made any other payments or Distributions on or in respect of any of the Common Shares and has not, directly or indirectly, redeemed, purchased or otherwise acquired any of its securities or agreed to do so or otherwise effected any return of capital with respect to such securities;
- (j) all taxes (including income tax, capital tax, payroll taxes, employer health tax, workers' compensation payments, property taxes, custom and land transfer taxes), duties, royalties, levies, imposts, assessments, deductions, charges or withholdings and all liabilities with respect thereto including any penalty and interest payable with respect thereto (collectively, "Taxes") due and payable by the Corporation have been paid except where the failure to pay such taxes would not have a Material Adverse Effect. All tax returns, declarations, remittances and filings required to be filed by the Corporation have been filed with all appropriate governmental authorities and all such returns, declarations, remittances and filings are complete and accurate and no material fact or facts have been omitted therefrom which would make any of them misleading except where such failure would not have a Material Adverse Effect. The Corporation have taxes not received any written notice regarding examination of any tax return of the Corporation currently in progress and the Corporation is not aware of any facts that could give rise to any such examination and there are no issues or disputes outstanding with any governmental authority respecting any Taxes that have been paid, or may be payable, by the Corporation except:
  - (i) where such examinations would not have a Material Adverse Effect; or
  - (ii) as disclosed in Note 7 of the Interim Financial Statements;
- (k) the Scientific Research and Experimental Development ("SR&ED") credits receivable described in the Offering Documents and any other SR&ED credits otherwise applied for by the Corporation are based on underlying work, expenses and claims of the Corporation giving rise to such SR&ED credits which satisfy the requirements of the *Income Tax Act*(Canada) in order for the Corporation to claim or have claimed such SR&ED credits, and to the knowledge of the Corporation there are no facts, circumstances or basis upon which the applicable taxing authority could reject, disallow, adversely reassess or deny the Corporation any such SR&ED credits, except:
  - (i) as disclosed in Note 7 of the Interim Financial Statements; or
  - (ii) as otherwise disclosed to the Agent in writing;

- (l) the Corporation's Auditors, which are the auditors who audited the Audited Financial Statements and who provided their audit report thereon, are independent public accountants under Applicable Securities Laws of the Canadian Selling Jurisdictions and there has never been a "reportable disagreement" (within the meaning of NI 51-102) between the Corporation and the Corporation's Auditors;
- (m) the Corporation maintains a system of internal accounting controls sufficient to provide reasonable assurance that:
  - (i) transactions are executed in accordance with management's general or specific authorization;
  - transactions are recorded as necessary to permit preparation of financial statements in conformity with international financial reporting standards and to maintain accountability for assets;
  - (iii) access to assets is permitted only in accordance with management's general or specific authorization; and
  - the recorded accountability for assets is compared with existing assets at reasonable intervals and appropriate action is taken with respect to any differences;
- (n) the Corporation is in compliance with the certification requirements contained in National Instrument 52-109 Certification of Disclosure in Issuers' Annual and Interim Filings of the Canadian Securities Administrators with respect to the Corporation's annual and interim filings with Canadian Securities Regulators;
- the audit committee of the Corporation is comprised and operates in accordance with the requirements of National Instrument 52-110 Audit Committees of the Canadian Securities Administrators;
- (p) except for the Warrants, the Compensation Warrants and as set forth in Schedule "A" to this Agreement, no holder of outstanding securities of the Corporation will be entitled to any pre-emptive or any similar rights to subscribe for any of the Common Shares or other securities of the Corporation, and no rights, warrants or options to acquire, or instruments convertible into or exchangeable for, any shares in the capital of the Corporation are outstanding;
- (q) all information which has been prepared by the Corporation relating to the Corporation and its business, properties and liabilities that is or has been publicly disclosed or otherwise provided to the Agent or its counsel, including any investor or corporate presentations posted on the Corporation's website, and all financial, marketing, sales and operational information, is, as of the date of such information, true and correct in all material respects, contains no misrepresentation and no fact or facts have been omitted therefrom which would make such information misleading;
- (r) except as properly disclosed in the Offering Documents, the Corporation has not approved, has not entered into any agreement in respect of, and to the knowledge of the Corporation there are no facts or circumstances in respect of:

- the purchase of any material property or assets or any interest therein or the sale, transfer or other disposition of any material property or assets or any interest therein currently owned, directly or indirectly, by the Corporation whether by asset sale, transfer of shares or otherwise;
- (ii) the issuance of any securities of the Corporation or a right of first refusal with respect to the issuance by the Corporation of any securities;
- (iii) any change in control of the Corporation (whether by sale, transfer or other disposition of shares or sale, transfer, lease or other disposition of all or substantially all of the property and assets of the Corporation);
- (iv) a proposed or planned disposition of shares by any shareholder who owns, directly or indirectly, 10% or more of the outstanding shares of the Corporation; or
- (v) an agreement in force or having the effect of which in any manner affects or will affect the voting or control of any of the securities of the Corporation;
- (s) no legal or governmental proceedings are pending to which the Corporation is a party or to which its property is subject that would result individually or in the aggregate in a Material Adverse Effect and, to the knowledge of the Corporation, no such proceedings have been threatened against, or are contemplated with respect to, the Corporation or its properties;
- (t) the Corporation is the legal and beneficial owner, free of all mortgages, liens, charges, pledges, security interests, encumbrances, claims or demands whatsoever, of the interests in personal property referred to as owned by it in the Prospectus, and all material agreements under which the Corporation holds an interest in personal property are in good standing according to their terms;
- (u) the minute books and records of the Corporation made available to counsel for the Agent in connection with its due diligence investigations of the Corporation are all of the minute books and records of the Corporation and contain copies of all material proceedings of the shareholders, the board of directors and all committees of the board of directors of the Corporation to the date of review of such corporate records and minute books, and there have been no other meetings, resolutions or proceedings of the shareholders, board of directors or any committees of the board of directors of the Corporation not reflected in such minute books and other records;
- (v) the Corporation is, and will be at the Closing Time, an Eligible Issuer and a reporting issuer under Applicable Securities Laws in the Canadian Selling Jurisdictions, and the Corporation is not in default in any material respect of any requirement of Applicable Securities Laws and the Corporation is not included in a list of defaulting reporting issuers maintained by the applicable Securities Regulators. In particular, without limiting the foregoing, the Corporation is in compliance at the date hereof with its obligations to make timely disclosure of all material changes relating to it and, since January 1, 2015, no such disclosure has been made on a confidential basis and there is no material change relating to the Corporation which has occurred and with respect to which the requisite material change statement has not been filed, except to the extent that the Offering and the transactions contemplated thereunder may constitute a material change;

- (w) the execution and delivery of each of this Agreement, the Warrant Indenture and the Compensation Warrant Certificates and the compliance with all provisions contemplated thereunder, the Offering and sale of the Offered Units and the issuance of the Offered Units and the Compensation Warrants does not and will not:
  - require the consent, approval, authorization, registration or qualification of or with any governmental authority, stock exchange, securities regulatory authority or other third party (in each case in the Selling Jurisdictions), except: (A) such as have been obtained; or (B) such as may be required and will be obtained by the Closing Time;
  - result in a breach of, or default under, nor create a state of facts which, after notice or lapse of time or both, would result in a breach of or default under, nor conflict with:
    - (A) any of the terms, conditions or provisions of the constating documents or resolutions of the shareholders, board of directors or any committee of the board of directors of the Corporation;
    - (B) any Applicable Law applicable to the Corporation, including, without limitation, the Applicable Securities Laws, or any judgment, order or decree of any governmental body, agency or court having jurisdiction over the Corporation; or
    - (C) any Material Agreement; or
  - give rise to any lien, charge or claim in or with respect to the properties or assets now owned or hereafter acquired by the Corporation or the acceleration of or the maturity of any debt under any indenture, mortgage, lease, agreement or instrument binding or affecting the Corporation or any of its properties;
- (x) the authorized capital of the Corporation consists of an unlimited number of Common Shares of which (as of June 19, 2017) 188,346,181 Common Shares are issued and outstanding as fully paid and non-assessable;
- (y) other than as contemplated hereby, there is no person acting or purporting to act at the request or on behalf of the Corporation that is entitled to any brokerage or finder's fee in connection with the Offering;
- (z) all material disclosure filings required to be made by the Corporation pursuant to Applicable Securities Laws from January 1, 2015 have been made and such disclosure and filings contained no material misrepresentation as at the respective dates thereof;
- (aa) all forward-looking information and statements of the Corporation contained in the Prospectus and the assumptions underlying such information and statements, subject to any qualifications contained therein, including any forecasts and estimates, expressions of opinion, intention and expectation, as at the time they were or will be made, were or will be made or based on assumptions that are reasonable;
- (bb) the statistical, industry and market related data included in the Prospectus are derived from sources which the Corporation reasonably believes to be accurate, reasonable and reliable, and such data agrees in all material respects with the sources from which it was derived;

- (cc) the Corporation is not aware of any legislation, or proposed legislation (published by a legislative body), which it anticipates will materially and adversely affect the business, affairs, operations, assets, liabilities (contingent or otherwise) or prospects of the Corporation;
- (dd) the Corporation is in material compliance with all Applicable Laws respecting employment and employment practices, terms and conditions of employment, pay equity and wages, except where non-compliance with such laws could not reasonably be expected to have a Material Adverse Effect, and has not and is not engaged in any unfair labour practice;
- (ee) except as properly disclosed in the Offering Documents, there has not been and there is not currently any labour disruption or conflict which could reasonably be expected to have a Material Adverse Effect;
- (ff) the Corporation does not have any loans or other indebtedness outstanding which have been made to any of its officers, directors or employees, past or present, any known holder of more than 10% of any class of shares of the Corporation, or any person not dealing at arm's length with the Corporation that are currently outstanding;
- (gg) except as disclosed in the Disclosure Record, none of the directors, officers or employees of the Corporation, any known holder of more than 10% of any class of shares of the Corporation, or any associate or affiliate of any of the foregoing persons, had or has any material interest, direct or indirect, in any transaction or any proposed transaction that was or is material to the Corporation;
- (hh) the Corporation maintains insurance covering the properties, operations, personnel and businesses of the Corporation as the Corporation reasonably deems adequate; such insurance insures against such losses and risks to an extent which is adequate in the reasonable opinion of management of the Corporation to protect the Corporation and the business of the Corporation; all such insurance is fully in force on the date hereof and will be fully in force on the Closing Date; and the Corporation has no reason to believe that it will not be able to renew any such insurance as and when such insurance expires;
- (ii) the Corporation (i) is in compliance with any and all Applicable Laws relating to the protection of human health and safety, the environment or hazardous or toxic substances or wastes, pollutants or contaminants ("Environmental Laws"), (ii) has received all permits, licenses or other approvals required under applicable Environmental Laws to conduct its business, (iii) is in compliance with all terms and conditions of any such permit, license or approval, (iv) to the knowledge of the Corporation, there have been no past, and there are no pending or threatened claims, complaints, notices or requests for information received by the Corporation with respect to any alleged material violation of any Environmental Law, and (v) to the knowledge of the Corporation, no conditions exist at, on or under which, with the passage of time, or the giving of notice or both, would give rise to liability under any Environmental Law; except where such non-compliance, failure to receive a permit, licence or other approval, claim or condition would not, singly or in the aggregate, have or would be expected to have a Material Adverse Effect on the Corporation;

- no order, ruling or determination having the effect of suspending the sale or ceasing the trading in any securities of the Corporation has been issued by any securities regulatory authority and is continuing in effect and no proceedings for that purpose have been instituted or, to the knowledge of the Corporation, are pending, contemplated or threatened by any securities regulatory authority;
- (kk) the Corporation has not made any loans to, or guaranteed the obligations of, any person;
- (II) with respect to each of the premises of the Corporation which is material to the Corporation and which the Corporation occupies as tenant (the "Leased Premises"), the Corporation has the right to occupy and use such Leased Premises, and each of the leases pursuant to which the Corporation occupies the Leased Premises are in good standing and in full force and effect, and neither the Corporation nor any other party thereto is in breach of any material covenants, conditions or obligations contained therein;
- (mm) there have not been and there are not currently any material disagreements with any of the employees of the Corporation which are adversely affecting the carrying on of the business of the Corporation;
- (nn) there is no action, suit, proceeding, inquiry or investigation before or brought by any court or governmental agency or body, domestic or foreign, including, for the avoidance of doubt, any Regulatory Authority, now pending or threatened against or affecting the Corporation, which would cause a Material Adverse Effect;
- (oo) the Transfer Agent at its principal offices in the City of Toronto has been duly appointed as registrar and transfer agent for the Common Shares;
- (pp) neither the Corporation, nor to the knowledge of the Corporation, any director, officer, agent, employee or other person associated with or acting on behalf of the Corporation has: (i) used any corporate funds for any unlawful contribution, gift, entertainment or other unlawful expense relating to political activity; (ii) made any direct or indirect unlawful payment to any foreign or domestic government official or employee from corporate funds; (iii) violated any applicable anti-bribery, export control and economic sanctions laws including any provision of the *Corruption of Foreign Officials Act*

(Canada) or the United States Foreign Corrupt Practice Act; or (iv) made any bribe, rebate, payoff, influence payment, kickback or other unlawful payment;

(qq) the Corporation holds all of the permits, licenses and like authorizations necessary for it to carry on its business in each jurisdiction where such business is carried on that are material to the conduct of the business of the Corporation (as such business is currently conducted), including, but not limited to, permits, licenses and like authorizations from Regulatory Authorities (collectively, the "Material Permits"); all such Material Permits which are so required are valid and subsisting and in good standing and none of the same contains any term, provision, condition or limitation which has or would reasonably be expected to affect or restrict in a materially adverse manner the operation of the business of the Corporation, as now carried on or proposed to be carried on, as set out in the Prospectus, and the Corporation is not in breach thereof or in default with respect to filings to be effected or conditions to be fulfilled in order to maintain such Material Permits in good standing;

- (rr) the Corporation is and at all times has been in material compliance with each Material Permit held by it and is not in violation of, or in default under, any such Material Permit in any material respect, except in any case where the Corporation has received a valid and effective waiver of such violation or default;
- (ss) all clinical studies, tests and trials being conducted by or on behalf of the Corporation that have been or will be submitted to any governmental entity, including any Regulatory Authority, including in Canada and the European Union, in connection with any Material Permits, are being or have been conducted by the Corporation or, to the knowledge of the Corporation, are being or have been conducted on behalf of the Corporation, in compliance in all material respects with applicable experimental protocols, procedures and controls pursuant to generally accepted professional scientific standards and applicable local, provincial, state, federal and foreign legal requirements, rules and regulations (including Applicable Laws administered by the Regulatory Authorities);
- (tt) the results of the clinical studies, tests and trials being conducted by or on behalf of the Corporation described in the Prospectus are accurate and complete in all material respects and, to the knowledge of the Corporation, there are no other trials, studies or tests, the results of which could reasonably call into question the results described or referred to in the Prospectus; and the Corporation has not received any notices or other correspondence from such Regulatory Authorities or any other governmental agency or any other person requiring the termination, suspension or material modification of any research, pre-clinical and clinical validation studies or other studies and tests that are described in the Prospectus or the results of which are referred to therein;
- (uu) except (i) with respect to intellectual property to which ownership is not statutorily protected, (ii) reversionary and moral rights, and (iii) for the Intellectual Property identified in Schedule "D", the Corporation is the sole legal and beneficial owner of, has good and marketable title to, and owns all right, title and interest in and to all Corporation IP free and clear of all encumbrances, charges, covenants, conditions, options to purchase and restrictions or other adverse claims or interest of any kind or nature, and the Corporation has no knowledge of any claim of adverse ownership in respect thereof;
- (vv) Schedule "C" to this Agreement contains, among other things, a true and complete list of all active (including reinstatable) applied for and registered patents and trademarks owned by the Corporation;
- (ww) to the Corporation's knowledge, there is no Intellectual Property, other than the Intellectual Property which the Corporation owns and licenses, that is required to permit the Corporation to substantially carry on its present business as described in the Prospectus, and the Corporation is not aware of any Intellectual Property owned by another person that is required to permit the Corporation to substantially carry on its business as described in the Prospectus and to which the Corporation knows it cannot obtain a license;
- (xx) the licenses identified at Schedule "D" do not materially impede, restrict or prevent the conduct of the business of the Corporation as described in the Prospectus;

- (yy) the Corporation has not received any notice or claim (whether written, oral or otherwise) challenging the Corporation's ownership or right to use any of the Corporation IP or suggesting that any other person has any claim of legal or beneficial ownership or other claim or interest with respect thereto, nor, to the knowledge of the Corporation, is there a reasonable basis for any claim that any person other than the Corporation has any claim of legal or beneficial ownership or other claim or interest in any of the Corporation IP, except for the Intellectual Property identified in Schedule "D";
- (zz) all active Applied for Corporation IP and active Registered Corporation IP is, to the knowledge of the Corporation, in good standing, is recorded in the name of the Corporation and has been filed in a timely manner in the appropriate offices to preserve the rights thereto (if any) and, in the case of a provisional application, the Corporation confirms that all right, title and interest in and to the potential invention(s) disclosed in such application have been or as of the Closing Date will be assigned in writing (without any express right to revoke such assignment) to the Corporation. To the knowledge of the Corporation, there has been no public disclosure, sale or offer for sale by the Corporation of any invention described in each of the Corporation IP anywhere in the world that would prevent the valid issue of a registration from that Corporation IP in the corresponding jurisdiction;
- (aaa) all material prior art or other information known to the Corporation relating to the Corporation IP has been disclosed to the appropriate offices if and to the extent such disclosure is required to comply with the Applicable IP Laws in the jurisdictions where the corresponding applications are pending;
- (bbb) to the knowledge of the Corporation, all active Registered Corporation IP has been filed, prosecuted and obtained in accordance with the corresponding Applicable IP Laws and is currently in effect and in compliance with such Applicable IP Laws;
- (ccc) to the knowledge of the Corporation, and except for (i) provisional patent applications which were filed more than one year ago, and (ii) any inactive Intellectual Property identified in Schedule "C", no Applied for Corporation IP or Registered Corporation IP has expired, become abandoned, been cancelled or expunged, or has lapsed for failure to be renewed or maintained;
- (ddd) to the knowledge of the Corporation, the conduct of the business of the Corporation (including, without limitation, the use or other exploitation of the Corporation IP by the Corporation or other licensees) has not infringed, violated or misappropriated any Intellectual Property right of any person;
- (eee) the Corporation is not a party to any legal action or legal proceeding, nor has the Corporation received notice of any legal action or legal proceeding being threatened, that alleges that any current or proposed conduct of the Corporation's business (including, without limitation, the use or other exploitation of any Corporation IP by the Corporation or any customers, distributors or other licensees) has or will infringe, violate or misappropriate any Intellectual Property right of any person;
- (fff) to the knowledge of the Corporation, no person has infringed upon, misappropriated, illegally exported, or violated any of the Corporation's rights in the Corporation IP;

- (ggg) the Corporation has entered into agreements pursuant to which the Corporation has been granted licenses or permissions to one or more of make, use, reproduce, sub license, manufacture, sell, modify, update, enhance or otherwise exploit the Licensed IP to the extent required to operate the business of the Corporation currently conducted (including, if required, the right to incorporate such Licensed IP into the Corporation's products) as described in the Prospectus. All of the agreements granting licenses to the patents that are material to the Corporation's business are listed on Schedule "E" hereof, have not expired or been terminated, and neither the Corporation nor, to the knowledge of the Corporation, any other party is in default of its obligations under such agreements;
- (hhh) to the extent that any of the non-publicly disclosed Corporation IP is disclosed to any person or any person has access to such Corporation IP (including, without limitation, any employee, officer, shareholder or consultant of the Corporation), the Corporation has entered into an agreement which contains customary terms and conditions with respect to the use and disclosure of such Corporation IP. Where such agreements have not expired or have not been terminated, in each case in accordance with their respective terms, neither the Corporation nor, to the knowledge of the Corporation, any other person is in default of its obligations thereunder with respect to the terms and conditions relating to use and disclosure of Corporation IP;
- the Corporation has taken all actions that it is contractually obligated to take and all actions that are customary and reasonable to protect the confidentiality of the Corporation IP that it treats as confidential;
- (jjj) to the knowledge of the Corporation, it is not, and will not be, necessary for the Corporation to utilize any Intellectual Property owned by or in possession of any of its employees that was made prior to their employment with the Corporation in a manner that is in violation of the rights of such employee or the rights of his or her prior employers;
- (kkk) the Corporation has not received any opinion from its legal counsel that any of the active Registered Corporation IP or Applied for Corporation IP is clearly, but not as a result of any prior art, invalid, unregistrable, or unenforceable in the case of Registered Corporation IP;
- (III) the Corporation has not received any grant relating to research and development which is subject to repayment in whole or in part or to conversion to debt upon sale of any Common Shares or which may affect the right of ownership of the Corporation in the Corporation IP;
- (mmm) the Corporation requires each of its employees and consultants to execute a non- disclosure agreement containing customary terms and conditions for agreements of this nature, and all current employees and consultants of the Corporation have executed such agreement and, to the knowledge of the Corporation, all past employees and consultants of the Corporation have executed such agreement;
- (nnn) all of the present and past employees of the Corporation, and all of the present and past consultants, contractors and agents of the Corporation performing services relating to the conception, discovery, making or development of the Corporation IP, have entered into a written agreement assigning or requiring assignment to the Corporation of, or confirming that the Corporation owns all right, title and interest in and to all such Intellectual Property and, with respect to any Corporation IP in which moral rights subsist, waiving all moral rights in such Intellectual Property in favour of the Corporation;

- (000) any and all fees or payments required to keep the Registered Corporation IP and, to the knowledge of the Corporation, the registered Licensed IP active have been paid, except those which the Corporation has decided to let lapse;
- (ppp) there are no ongoing Intellectual Property disputes, settlement negotiations, settlement agreements or communications relating to the foregoing between the Corporation and any other persons relating to or potentially relating to the business of the Corporation which have not been resolved;
- (qqq) the Corporation has conducted and is conducting its business in compliance in all material respects with all Applicable Laws of each jurisdiction in which it carries on business and has not received a notice of non-compliance, nor knows of, nor has reasonable grounds to know of, any facts that could give rise to a notice of non- compliance with any such Applicable Laws which would have a Material Adverse Effect;
- (rrr) except pursuant to the licenses identified in Schedule "D", the Corporation is not aware of any reason why it would not be entitled to make use of or commercially exploit the Corporation IP. With respect to each license that is material to its business in the agreements identified in Schedule "E" by which the Corporation has obtained the rights to exploit, in any way, the Licensed IP rights or by which the Corporation has granted to any third party the right to so exploit such Licensed IP:
  - such license is in operation and enforceable in accordance with its terms, except to the extent that enforceability may be limited by: (A) applicable bankruptcy, insolvency, reorganization, moratorium, and other laws of general application affecting enforcement of creditors' rights generally; or (B) laws relating to the availability of specific performance, injunctive relief, or other equitable remedies, and no event of default has occurred and is continuing under any such license or agreement;
  - (ii) (A) the Corporation has not received any notice of termination or cancellation under such license, and no party thereto has any right of termination or cancellation thereunder except in accordance with its terms; (B) the Corporation has not received any notice of a breach or default under such license which breach or default has not been cured; and (C) the Corporation has not granted to any other person any rights contrary to, or in conflict with, the terms and conditions of such license;
  - the Corporation is not aware of any other party to such license or agreement that is in breach or default thereof, and is not aware of any event that has
    occurred that, with notice or lapse of time would constitute such a breach or default or
- (sss) for each taxable year, if any, that the Corporation qualifies as a "passive foreign investment corporation" (a "PFIC"), as defined in Section 1297(a) of the Internal Revenue Code of 1986, as amended (the "Code"), in the case of a Purchaser of Offered Units that is a "United States person," as defined in Section 7701(a)(30) of the Code, and that is making or has made an effective "qualified electing fund" election, as defined in Section 1295 of the Code with respect to the Corporation (a "QEF Election"), the Corporation will provide to such Purchaser, upon written request: (a) a "PFIC Annual Information Statement" as described in Treasury Regulation Section 1.1295 -1(g) (or any successor Treasury Regulation), including all representations and statements required by such PFIC Annual Information Statement; and (b) all additional information that such Purchaser is required to obtain in connection with making or maintaining a QEF Election. The Corporation shall also take such other actions as may reasonably be necessary to facilitate and maintain a QEF Election by any such purchaser. With regard to the PFIC Annual Information Statement, (i) except as otherwise requested by any particular Purchaser, the Corporation must provide a PFIC Annual Information Statement described in Treasury Regulation Section 1.1295 -1(g)(1)(ii)(A) or (B); and (ii) as permitted by Treasury Regulation Section 1.1293 -1(a)(2)(A), the Corporation will calculate and report the amount of each category of long-term capital gain described in Section 1(h) of the Code that was recognized by the Corporation. The Corporation may elect to provide such information (including its PFIC Annual Information Statement) on its website;

- (ttt) none of the Corporation nor any of its predecessors has had the registration of a class of securities under the U.S. Exchange Act revoked by the United States Securities Exchange Commission pursuant to Section 12(j) of the U.S. Exchange Act and any rules or regulations promulgated thereunder;
- (uuu) the operations of the Corporation are and have been conducted at all times in compliance with, in each case to the extent applicable, the financial recordkeeping and reporting requirements of the United States Currency and Foreign Transactions Reporting Act of 1970, as amended, the Proceeds of Crime (Money Laundering) and Terrorist Financing Act (Canada), the anti-money laundering statutes of all jurisdictions, the rules and regulations thereunder and any related or similar rules, regulations or guidelines, issued, administered or enforced by any governmental agency (collectively, the "Anti-Money Laundering Laws"), and no action, suit or proceeding by or before any court or governmental agency, authority or body or any arbitrator involving the Corporation with respect to the Anti-Money Laundering Laws is pending or, to the knowledge of the Corporation, threatened; and
- (vvv) neither the Corporation, nor, to the knowledge of the Corporation, any director, officer, agent, employee or affiliate of the Corporation is currently subject to any U.S. sanctions administered by the Office of Foreign Assets Control of the U.S. Treasury Department ("OFAC") and the Corporation will not directly or indirectly use the proceeds of the Offering, or lend, contribute or otherwise make available such proceeds to any subsidiary, joint venture partner or other person or entity, for the purpose of financing the activities of any person currently subject to any U.S. sanctions administered by OFAC.

#### 8. Closing

The purchase and sale of the Offered Units shall be completed at the Closing Time at the offices of counsel to the Corporation, Borden Ladner Gervais LLP, Toronto, Ontario, or at such other place or places as the Agent and the Corporation may agree. At the Closing Time, the Corporation shall (a) deliver to the Agent one or more global certificates representing the Unit Shares and Warrants, respectively, sold pursuant to the Offering registered in the name of CDS Clearing and Depositary Services Inc., or its nominee ("CDS"), or otherwise effect or cause to be effected one or more electronic deposit(s) pursuant to the non-certificated issue system maintained by CDS such quantity of Offered Units as the Agent may direct the Corporation in writing, and (b) with respect to Purchasers in the United States that are Accredited Investors, deliver to the Agent physical certificates representing the Unit Shares and Warrants registered as the Agent may direct the Corporation for the Offered Units by certified cheque, bank draft or wire transfer. The payment by the Agent to the Corporation will be net of the Agency Fee and net of amounts payable to the Agent's legal counsel, Baker & McKenzie LLP, and out-of-pocket expenses of the Agent incurred in connection with the Offering (which expenses shall be borne by the Corporation), as more fully set out in Section 13. In addition, the Corporation shall, at the Closing Time, issue to the Agent the Compensation Warrant Certificates.

If the aggregate gross proceeds to the Corporation from the Initial Closing is equal to or greater than the Minimum Offering, the Corporation and the Agent may agree from time to time to hold additional closings on or prior to 30 days following the date of issuance of the Final Receipt to issue additional Units until such time as the aggregate gross proceeds to the Corporation is equal to the Maximum Offering. Any such additional closing shall be referred to as a "**Subsequent Closing**" and shall be conducted in the same manner as the Initial Closing. At any Subsequent Closing, the Corporation and the Agent shall make all necessary payments and the Corporation shall, at its sole expense, deliver all of the certificates, opinions and other documents to be delivered by it on the Initial Closing Date, each updated to the date of any such Subsequent Closing.

## 9. Closing Conditions

The Agent's obligation to complete the Closing at the Closing Time shall be subject to the accuracy of the representations and warranties of the Corporation contained in this Agreement as of the date of this Agreement and as of the Closing Date, the performance by the Corporation of its obligations under this Agreement and the following conditions:

- (a) the Agent shall have received an opinion, dated the Closing Date, of the Corporation's Canadian counsel, Borden Ladner Gervais LLP, and any other local counsel, in form and substance satisfactory to the Agent, acting reasonably (it being understood that such counsel may rely to the extent appropriate in the circumstance: (i) as to matters of fact, on certificates of the Corporation executed on its behalf by a senior officer of the Corporation and on certificates of the Transfer Agent, as to the issued capital of the Corporation; and (ii) as to matters of fact not independently established, on certificates of public officials) with respect to the following matters (with such opinions being subject to usual and customary assumptions and qualifications, including the qualifications set out below):
  - (i) as to the incorporation and subsistence of the Corporation under the laws of the Province of Ontario and as to the corporate power of the Corporation to carry out its obligations under this Agreement and to issue the Offered Units and the Compensation Warrants;
  - (ii) as to the authorized and issued capital of the Corporation;
  - that the Corporation has all requisite corporate power and authority under the laws of its jurisdiction of incorporation to carry on its business and to own or lease its properties and assets as described in the Prospectus;
  - that none of the execution and delivery of this Agreement, the Warrant Indenture and the Compensation Warrant Certificates and the performance by the Corporation of its obligations hereunder, or the sale or issuance of the Offered Units and the Compensation Warrants will conflict with or result in any breach of the articles or by-laws of the Corporation;

- (v) that each of this Agreement, the Warrant Indenture and the Compensation Warrant Certificates has been duly authorized and executed and delivered by the Corporation, and constitutes a valid and legally binding obligation of the Corporation enforceable against it in accordance with its terms, except as enforcement thereof may be limited by bankruptcy, insolvency, liquidation, reorganization, moratorium or similar laws affecting the rights of creditors generally and except as limited by the application of equitable principles when equitable remedies are sought, and the qualification that the enforceability of rights of indemnity and contribution may be limited by Applicable Law;
- (vi) all necessary corporate action has been taken by the Corporation to authorize the execution and delivery of the Prospectus and any Prospectus Amendment and the filing of such documents as are required under Applicable Securities Laws in each of the Canadian Selling Jurisdictions;
- (vii) no consent, approval, authorization or order of or filing, registration or qualification with any court, governmental agency or body or securities regulatory authority having jurisdiction is required at this time for the execution and delivery by the Corporation of this Agreement, the Warrant Indenture or the Compensation Warrant Certificates and the performance of its obligations hereunder and thereunder, except for such as have been made or obtained;
- (viii) that the Unit Shares (including for greater certainty the Common Shares issuable on the exercise of the Compensation Warrants) have been validly issued as fully paid and non-assessable securities in the capital of the Corporation;
- (ix) that the Warrants and Compensation Warrants have been duly and validly created and issued;
- that the Warrant Shares have been authorized and allotted for issuance and, upon the issuance of the Warrant Shares following due exercise of the Warrants in accordance with the respective terms thereof, the Warrant Shares will be validly issued as fully paid and non-assessable securities in the capital of the Corporation;
- (xi) all approvals, permits, consents, orders and authorizations have been obtained, all necessary documents have been filed and all other legal requirements have been fulfilled under Applicable Securities Laws of the Canadian Selling Jurisdictions to qualify the issuance or Distribution and sale of the Offered Units to the public in each of the Canadian Selling Jurisdictions and the Compensation Warrants to the Agent and to permit the issuance, sale and delivery of such Offered Units to the public through dealers registered under the Applicable Laws of each of the Canadian Selling Jurisdictions who have complied with the relevant provisions of such laws and the terms of their registration;
- (xii) subject to the qualifications, assumptions, limitations and understandings set out therein, the statements set out in the Prospectus, under the heading "Eligibility for Investment" are true and correct as at the date of the Prospectus;

- (xiii) that the attributes of the Common Shares conform in all material respects with the description thereof contained in the Prospectus;
- (xiv) that the Offering has been conditionally accepted by the TSX; and
- (xv) as to such other matters as the Agent's legal counsel may reasonably request prior to the Closing Time;
- (b) if any sales of Offered Units have been effected in the United States, the Agent shall have received a legal opinion addressed to the Agent from United States local counsel, dated as of the Closing Date, in form and substance satisfactory to the Agent, acting reasonably, to the effect that, subject to customary assumptions, the offer and sale of the Offered Units in accordance with Schedule "B" are not required to be registered under the U.S. Securities Act;
- (c) the Agent shall have received the Unit Shares, the Warrants and the Compensation Warrants (in physical or electronic form, subject to compliance with Applicable Securities Laws, and as the Agent may advise);
- (d) the Agent shall have received an incumbency certificate dated the Closing Date including specimen signatures of the President and Chief Executive Officer, the Chief Financial Officer and any other officer of the Corporation signing this Agreement or any document delivered hereunder;
- (e) the Agent shall have received a certificate dated the Closing Date of the President and Chief Executive Officer and the Chief Financial Officer of the Corporation or other officers of the Corporation acceptable to the Agent, to the effect that, to the best of their knowledge, information and belief, after due inquiry and without personal liability:
  - the representations and warranties of the Corporation contained in this Agreement are true and correct in all respects as if made at and as of the Closing Time;
  - the Corporation has complied with and satisfied the covenants, terms and conditions of this Agreement on its part to be complied with and satisfied up to the Closing Time;
  - (iii) the constating documents of the Corporation delivered at Closing are full, true and correct copies, unamended, and in effect on the date thereof;
  - the minutes or other records of various proceedings and actions of the Corporation's board of directors relating to the Offering and delivered at Closing are full, true and correct copies thereof and have not been modified or rescinded as of the date thereof;
  - (v) no order, ruling or determination having the effect of suspending the sale or ceasing the trading of the Common Shares or any other securities of the Corporation has been issued by any stock exchange, securities commission or securities regulatory authority and is continuing in effect and no proceedings for that purpose have been instituted or are pending;

- (vi) since the respective dates as of which information is given in the Prospectus as amended by any Prospectus Amendment: (A) there has been no material change (actual, anticipated, contemplated, proposed or threatened, whether financial or otherwise) in the business, financial condition, affairs, operations, business prospects, assets, liabilities or obligations (contingent or otherwise) or capital of the Corporation; and (B) other than the Offering and except as disclosed in the Prospectus and the Documents Incorporated by Reference therein or any Prospectus Amendment, as the case may be, no transaction has been entered into by the Corporation which constitutes a material change as defined in Applicable Securities Laws of the Canadian Selling Jurisdictions;
- (vii) none of the documents filed with applicable securities regulatory authorities since January 1, 2015, contained a misrepresentation as at the time the relevant document was filed that has not since been corrected; and
- (viii) there are no contingent liabilities affecting the Corporation which are material to the Corporation, other than as disclosed in the Prospectus and the Documents Incorporated by Reference therein or any Prospectus Amendment, as the case may be.
- (f) the Agent shall have received a "long form" comfort letter dated the Closing Date, in form and substance satisfactory to the Agent from the Corporation's Auditors confirming the continued accuracy of the comfort letter to be delivered to the Agent pursuant to subsection 4(a)(v) with such changes as may be necessary to bring the information in such letter forward to a date not more than two Business Days prior to the Closing Date, which changes shall be acceptable to the Agent;
- (g) the Corporation's board of directors shall have authorized and approved the execution and delivery of this Agreement, the Warrant Indenture and the Compensation Warrant Certificates, the allotment, issuance and delivery of the Unit Shares and the creation and issuance of the Warrants and Compensation Warrants and, upon the due exercise of the Warrants (including, for greater certainty, any Common Shares issuable on the exercise of the Compensation Warrants), the allotment, issuance and delivery of the Warrant Shares, and all matters relating thereto;
- (h) the Corporation shall not have received any notice from the TSX that the Unit Shares, Warrants or Warrant Shares (including for greater certainty any Common Shares issuable on the exercise of the Compensation Warrants) shall not be accepted for listing on the TSX;
- (i) that final acceptance of the Offering by the TSX shall be subject only to the fulfilment of Standard Listing Conditions;
- the Agent shall have received confirmation from the Corporation that the Corporation is not on the defaulting issuer's list (or equivalent) maintained by the Canadian Securities Regulators in the Canadian Selling Jurisdictions;
- (k) the Agent shall have received a certificate of good standing or equivalent thereof in respect of the Corporation;

- (l) the Agent and its counsel shall have been provided with all information and documentation reasonably requested relating to their due diligence inquiries and investigations;
- (m) the Corporation will have made and/or obtained the necessary filings, approvals, consents and acceptances of the appropriate securities regulatory authorities required to be made or obtained by the Corporation in connection with the sale of the Offered Units to the Purchasers prior to the Closing Time; as herein contemplated, it being understood that the Agent shall do all that is reasonably required to assist the Corporation to fulfil this condition, subject only to the Standard Listing Conditions and any post-Closing notice filings required under applicable United States federal or state securities laws; and
- (n) the Agent shall have received a certificate from the Transfer Agent as to the number of Common Shares issued and outstanding as at a date no more than two Business Days prior to the Closing Date.

The Corporation agrees that the aforesaid legal opinions and certificates to be delivered at the Closing Time will be addressed to the Agent and the Agent's counsel.

## 10. All Terms to be Conditions

The Corporation agrees that the conditions contained in this Agreement, including those terms in Section 9, will be construed as conditions and any breach or failure to comply with any of the conditions shall entitle the Agent to terminate its obligations hereunder by written notice to that effect given to the Corporation at or prior to the Closing Time. It is understood that the Agent may waive, in whole or in part, or extend the time for compliance with, any of such terms and conditions without prejudice to the rights of the Agent in respect of any such terms and conditions or any other or subsequent breach or non-compliance of the Corporation, provided that to be binding on the Agent, any such waiver or extension must be in writing and signed by the Agent.

## 11. Rights of Termination

Without limiting any of the other provisions of this Agreement, the Agent will be entitled, at its option, to terminate and cancel, without any liability on its part or on the part of the Purchasers, its obligations under this Agreement by giving written notice to the Corporation at any time prior to the Closing Time if, after the date hereof and at any time prior to the Closing:

- (a) there shall have occurred any change in any material fact, material adverse change (actual, intended, anticipated or threatened) or the Agent shall have discovered any previously undisclosed material fact (determined by the Agent in its sole discretion, acting reasonably) in relation to the Corporation, which, in the opinion of the Agent, acting reasonably, prevents or restricts trading in or the Distribution of the Offered Units or securities underlying the Offered Units or has or could reasonably be expected to have a Material Adverse Effect;
- (b) there shall have occurred any change in the Applicable Securities Laws of any Selling Jurisdiction or any inquiry, investigation or other proceeding by a securities regulatory authority or any order is issued under or pursuant to any statute of Canada or any province thereof or any stock exchange in relation to the Corporation or any of its securities (except for any inquiry, investigation or other proceeding based upon activities of the Agent and not upon activities of the Corporation), which, in the reasonable opinion of the Agent, would be expected to have a significant adverse effect on the market price of value of the Offered Units or securities underlying the Offered Units;

- (c) there should develop, occur or come into effect or existence any event, action, state, condition or major financial occurrence or catastrophe, accident, public protest, government law or regulation, war or act of terrorism of national or international consequence or any law or regulation which, in the opinion of the Agent, seriously adversely affects or involves, or will seriously adversely affect, or involve, the financial markets or the business, operations or affairs of the Corporation or the market price of value of the Offered Units or securities underlying the Offered Units;
- (d) the state of the financial markets in Canada and the United States is such that, in the reasonable opinion of the Agent, the Offered Units cannot be marketed profitably;
- (e) there is an inquiry or investigation (whether formal or informal) by any Securities Regulator or other regulatory authority in relation to the Corporation or any one of its directors or officers, or any of its principal shareholders, which has not been rescinded, revoked or withdrawn and which, in each case, operates to materially prevent or restrict the Distribution of the Offered Units as contemplated by this Agreement;
- a cease trading order with respect to any securities of the Corporation is made by any Securities Regulator or other competent authority by reason of the fault of the Corporation or its directors, officers and agents and such cease trading order has not been rescinded, revoked or withdrawn;
- (g) the Agent, acting reasonably, is not satisfied in its sole discretion with its due diligence review and investigations;
- (h) the Corporation is in breach of a material term, condition or covenant of this Agreement or any representation or warranty given by the Corporation in this Agreement becomes or is false or misleading; and
- (i) the Corporation receives notice from the TSX that the Unit Shares or Warrant Shares shall not be accepted for listing on the TSX.

The rights of termination contained herein are in addition to any other rights or remedies that the Agent may have in respect of any default, act or failure to act or noncompliance by the Corporation in respect of any of the matters contemplated by this Agreement or otherwise.

In the event of any such termination, there shall be no further liability on the part of the Agent to the Corporation or on the part of the Corporation to the Agent except in respect of any liability which may have arisen prior to or arise after such termination under any of Sections 12 and 13.

## 12. Indemnity and Contribution

The Corporation agrees to indemnify and hold harmless the Agent and each Selling Firm (provided that each such Selling Firm is in material compliance with the covenants and obligations of the Agent set forth in Section 3 herein (as if such Selling Firm were an Agent), to the extent applicable) and each of their subsidiaries and affiliates, and each of their respective directors, officers, employees, shareholders, partners, advisors and agents (collectively, the "Indemnified Parties" and each, an "Indemnified Party"), to the full extent lawful, from and against any and all losses (except loss of profit), claims, actions, suits, proceedings, damages, liabilities or expenses of whatsoever nature or kind, including the aggregate amount paid in reasonable settlement of any actions, suits, proceedings, investigations or claims and the reasonable fees and expenses of their counsel in connection with any action, suit, proceeding, investigation or claim that may be made or threatened against any Indemnified Party or in enforcing this indemnity (collectively, the "Claims") to which an Indemnified Party may become subject or otherwise involved in any capacity insofar as the Claims relate to, are caused by, result from, arise out of or are based upon, directly or indirectly, the performance of professional services rendered to the Corporation by an Indemnified Party hereunder or otherwise in connection with the matters referred to in this Agreement, whether performed before or after the Corporation's execution of this Agreement, including, without limitation, in connection with Claims relating to or arising from the following:

- (a) any information or statement (except any information or statement relating solely to or provided by the Agent) contained in the Offering Documents, which at the time and in light of the circumstances under which it was made contains or is alleged to contain a misrepresentation (as defined in the Securities Act (Ontario)) or any omission or any alleged omission to state therein any fact or information (except facts or information relating solely to the Agent) required to be stated therein or necessary to make any of the statements therein not misleading in light of the circumstances in which they are made;
- (b) the omission or alleged omission to state in any certificate of the Corporation or of any officers of the Corporation delivered in connection with the Offering any material fact (except facts or information relating solely to the Agent) required to be stated therein where such omission or alleged omission constitutes or is alleged to constitute a misrepresentation;
- (c) any order made or any inquiry, investigation or proceeding commenced or threatened by any securities regulatory authority, stock exchange or by any other competent authority, based upon any misrepresentation (as defined in the *Securities Act* (Ontario)) or alleged misrepresentation (except a misrepresentation relating solely to the Agent) in the Offering Documents (except any document or material delivered or filed solely by the Agent) based upon any failure or alleged failure to comply with Applicable Securities Laws (other than any failure or alleged failure to comply by the Agent) preventing and restricting the trading in or the sale of the Offered Units in any of the Selling Jurisdictions;
- (d) the non-compliance or alleged non-compliance by the Corporation with any material requirement of Applicable Securities Laws, including the Corporation's non-compliance with any statutory requirement to make any document available for inspection; or
- (e) material breach of any representation, warranty or covenant of the Corporation contained in this Agreement or the failure of the Corporation to comply in all material respects with any of its obligations hereunder,

and further agrees to immediately reimburse each Indemnified Party forthwith, upon demand, for any legal or other expenses reasonably incurred by such Indemnified Party in connection with any Claim.

The Corporation also agrees that no Indemnified Party shall have any liability (either direct or indirect, in contract or tort or otherwise) to the Corporation or any person asserting Claims on the Corporation's behalf or in right for or in connection with the performance of professional services rendered to the Corporation by an Indemnified Party hereunder or otherwise in connection with the matters referred to in this Agreement, whether performed before or after the Corporation's execution of the Agreement, except to the extent that any losses, expenses, Claims, actions, damages or liabilities incurred by the Corporation are determined by a court of competent jurisdiction in a final judgement that has become non-appealable to have resulted from the Indemnified Party's breach of this Agreement, or the gross negligence, wilful misconduct, fraud or dishonesty of such Indemnified Party.

In the event and to the extent that a court of competent jurisdiction in a final judgement that has become non-appealable determines that an Indemnified Party breached this Agreement, or was grossly negligent or guilty of wilful misconduct, fraud or dishonesty in connection with a Claim in respect of which the Corporation has advanced funds to the Indemnified Party pursuant to this indemnity, such Indemnified Party shall immediately reimburse such funds to the Corporation and thereafter this indemnity shall not apply to such Indemnified Party in respect of such Claim.

The Corporation agrees to waive any right the Corporation might have of first requiring the Indemnified Party to proceed against or enforce any other right, power, remedy or security or claim payment from any other person before claiming under this indemnity.

In case any Claim is brought against an Indemnified Party, or an Indemnified Party has received notice of the commencement of any investigation in respect of which indemnity may be sought against the Corporation, the Indemnified Party will give the Corporation prompt written notice of any such Claim or investigation of which the Indemnified Party has knowledge and the Corporation will undertake the investigation and defence thereof on behalf of the Indemnified Party, including the prompt employment of counsel acceptable to the Indemnified Parties affected and the payment of all expenses. Failure by the Indemnified Party to so notify shall not relieve the Corporation of its obligation of indemnification hereunder unless (and only to the extent that) such failure results in the forfeiture by the Corporation of substantive rights or defences or the extent that the Corporation is materially prejudiced thereby.

No admission of liability and no settlement, compromise or termination of any Claim shall be made without the Corporation's consent and the consent of the Indemnified Parties affected, such consents not to be unreasonably withheld.

Notwithstanding that the Corporation will undertake the investigation and defence of any Claim, an Indemnified Party will have the right to employ separate counsel with respect to any Claim and participate in the defence thereof, but the fees and expenses of such counsel will be at the expense of the Indemnified Party unless:

- (a) the employment of such counsel has been authorized in writing by the Corporation;
- (b) the Corporation has not assumed the defence within a reasonable period of time after receiving notice of such Claim;
- (c) the named parties to any such Claim include both the Corporation and the Indemnified Party and the Indemnified Party shall have been advised by counsel that there may be a conflict of interest between the Corporation and the Indemnified Party; or
- (d) the Indemnified Party has been advised in writing by counsel that there are one or more defences available to the Indemnified Party which are different from or in addition to those available to the Corporation, which makes representation by the same counsel inappropriate.

The rights accorded to the Indemnified Parties hereunder shall be in addition to any rights an Indemnified Party may have at common law or otherwise.

If for any reason the foregoing indemnification is unavailable (other than in accordance with the terms hereof) to the Indemnified Parties (or any of them) or insufficient to hold them harmless, then the Corporation shall contribute to the amount paid or payable by the Indemnified Parties as a result of such Claim in such proportion as is appropriate to reflect not only the relative benefits received by the Corporation on the one hand and the Indemnified Parties on the other hand, but also the relative fault of the Corporation and the Indemnified Parties, as well as any other equitable considerations which may be relevant; provided that the Corporation shall, in any event, contribute to the amount paid or payable by the Indemnified Parties as a result of such Claim, any amount in excess of the fees actually received by the Indemnified Parties hereunder in which case such fees and expenses will be for the Corporation's account.

The Corporation hereby acknowledges the Agent as trustee for each of the other Indemnified Parties of the Corporation's covenants under this indemnity with respect to such persons and the Agent agrees to accept such trust and to hold and enforce such covenants on behalf of such persons.

The Corporation agrees to immediately reimburse the Agent monthly for the time spent by an Indemnified Party in connection with any Claim at their reasonable per diem rates. The Corporation also agrees that if any Claim shall be brought against, or an investigation commenced in respect of the Corporation or the Corporation and the Indemnified Parties shall be required to testify, participate or respond in respect of or in connection with the performance of professional services rendered to the Corporation by an Indemnified Party hereunder or otherwise in connection with the matters referred to in this Agreement, the Agent shall have the right to employ its own counsel in connection therewith and the Corporation will immediately reimburse the Agent monthly for the time spent by an Indemnified Party in connection therewith at their reasonable per diem rates together with such fees and disbursements and reasonable out-of-pocket expenses as may be incurred, including the fees and disbursements of the Agent's counsel.

## 13. Expenses

Whether or not the transactions contemplated by this Agreement shall be completed, all expenses of or incidental to the Offering and all expenses of or incidental to all other matters in connection with the transaction set out in this Agreement shall be borne directly by the Corporation, including, without limitation, fees and expenses payable in connection with the qualification of the Offered Units and the Compensation Warrants for Distribution, fees and disbursements of counsel to the Agent incurred in connection with the Offering (to a maximum of US \$75,000 plus disbursements and applicable taxes), all fees and disbursements of counsel to the Corporation and local counsel, all fees and expenses of the Corporation's Auditors, all fees or commissions payable in connection with sales of Offered Units to President's List Subscribers, the reasonable fees and expenses relating to the marketing of the Offered Units (including, without limitation, "road shows", marketing meetings, marketing documentation and institutional investor meetings) and all costs incurred in connection with the offering. All reasonable expenses in connection with due diligence, marketing meetings and "road shows") and all costs incurred in connection with the Offering. All reasonable expenses incurred by or on behalf of the Agent and all fees and disbursements of counsel to the Agent and all fees and disbursements of counsel to the Agent apyable pursuant to the foregoing shall be deducted from the aggregate purchase price for the Offered Units in accordance with Section 8.

## 14. Survival of Representations, Warranties, Covenants and Agreements

The representations, warranties, covenants and agreements of the Corporation contained in this Agreement and in any certificate delivered pursuant to this Agreement or in connection with the purchase and sale of the Offered Units shall be true and correct at the Closing Time and shall survive the purchase of the Offered Units and shall continue in full force and effect until the later of: (i) three years following the Closing Date; and (ii) the latest date under the Applicable Securities Laws in which a Purchaser of Offered Units is resident or, if the Applicable Securities Laws do not specify such a date, the latest date under the *Limitations Act, 2002* (Ontario).

## 15. Conflict of Interest

The Corporation acknowledges that the Agent and its affiliates carry on a range of businesses, including providing stockbroking, investment advisory, research, investment management and custodial services to clients and trading in financial products as agent or principal. It is possible that the Agent and other entities in its group that carry on those businesses may hold long or short positions in securities of companies or other entities, which are or may be involved in the transactions contemplated in this Agreement and effect transactions in those securities for their own account or for the account of their respective clients. The Corporation agrees that these divisions and entities may hold such positions and effect such transactions without regard to the Corporation's interests under this Agreement.

### 16. Fiduciary

The Corporation hereby acknowledges that the Agent is acting solely as agent in connection with the offer and sale of the Offered Units. The Corporation further acknowledges that the Agent is acting pursuant to a contractual relationship created solely by this Agreement entered into on an arm's length basis, and in no event do the parties intend that the Agent act or be responsible as a fiduciary to the Corporation, its management, shareholders or creditors or any other person in connection with any activity that the Agent may undertake or have undertaken in furtherance of such offer and sale of the Corporation's securities, either before or after the date hereof. The Agent hereby expressly disclaims any fiduciary or similar obligations to the Corporation, either in connection with the transactions contemplated by this Agreement or any matters leading up to such transactions, and the Corporation hereby confirms its understanding and agreement to that effect. The Corporation and the Agent agree that they are each responsible for making their own independent judgments with respect to any such transactions and that any opinions or views expressed by the Agent to the Corporation regarding such transactions, including, but not limited to, any opinions or views with respect to the price or market for the Corporation's securities, do not constitute advice or recommendations to the Corporation. The Corporation and the Agent agree that the Agent has not, and the Agent will not assume, any advisory responsibility in favour of the Corporation on other matters). The Corporation hereby waives and releases, to the fullest extent permitted by law, any claims that the Corporation may have against the Agent with respect to any breach or alleged breach of any fiduciary duty to the Corporation in connection with the transactions contemplated by this Agreement.

### 17. Notice

Unless otherwise expressly provided in this Agreement, any notice or other communication to be given under this Agreement (a "Notice") shall be in writing addressed as follows:

If to the Corporation, addressed and sent to:

Titan Medical Inc. 170 University Avenue, Suite 1000 Toronto, Ontario M5H 3B3

 Attention:
 David J. McNally, President and Chief Executive Officer

 Email:
 david.mcnally@titanmedicalinc.com

with a copy (which shall not constitute notice) to:

Borden Ladner Gervais LLP East Tower, Bay Adelaide Centre, 22 Adelaide Street West, Suite 3400 Toronto, Ontario M5H 4E3

Attention:Manoj PunditFax:(416) 367-6749Email:mpundit@blg.com

If to the Agent, addressed and sent to:

Bloom Burton Securities Inc. 65 Front Street East, Suite 300 Toronto, Ontario M5E 1B5

Attention:Michael PollardEmail:mpollard@bloomburton.com

with a copy (which shall not constitute notice) to:

Baker & McKenzie LLP Brookfield Place, Bay/Wellington Tower 181 Bay Street, Suite 2100 Toronto, Ontario M5J 2T3

| Attention: | Sonia Yung                   |
|------------|------------------------------|
| Fax:       | (416) 863-6275               |
| Email:     | sonia.yung@bakermckenzie.com |

or to such other address as any of the persons may designate by Notice given to the others.

Each Notice shall be personally delivered to the addressee or sent by fax or email to the addressee and: (i) a Notice which is personally delivered shall, if delivered on a Business Day, be deemed to be given and received on that day and, in any other case, be deemed to be given and received on the first Business Day following the day on which it is delivered; and (ii) a Notice which is sent by fax or email shall be deemed to be given and received on the first Business Day following the day on which it is sent, provided that the sender has evidence of a successful transmission, such as a fax confirmation or email receipt confirmation.

### 18. Entire Agreement

The provisions herein contained constitute the entire agreement between the parties relating to the Offering and supersede all previous communications, representations, understandings and agreements between the parties with respect to the subject matter hereof whether verbal or written.

## 19. Press Releases

Any press release connected with the Offering issued by the Corporation shall be issued only after consultation with the Agent and in compliance with Applicable Securities Laws. If the Offering is successfully completed, the Agent shall be permitted to publish, at the Agent's expense, such advertisements or announcements relating to the services provided hereunder in such newspaper or other publications as it may consider appropriate as long as such advertisement or announcement complies with Applicable Securities Laws.

## 20. Funds

Unless otherwise specified, all funds referred to in this Agreement shall be in Canadian dollars.

#### 21. Time of the Essence

Time shall be of the essence of this Agreement.

### 22. Further Assurances

Each of the parties hereto shall cause to be done all such acts and things or execute or cause to be executed all such documents, agreements and other instruments as may reasonably be necessary or desirable for the purposes of carrying out the provisions and intent of this Agreement.

#### 23. Assignment

Except as contemplated herein, no party hereto may assign this Agreement or any part hereof without the prior written consent of the other parties hereto. Subject to the foregoing, this Agreement shall enure to the benefit of, and shall be binding upon, the Corporation and the Agent and their successors and legal representatives, and nothing expressed or mentioned in this Agreement is intended or shall be construed to give any other person any legal or equitable right, remedy or claim under or in respect of this Agreement, or any provisions contained in this Agreement, this Agreement and all conditions and provisions of this Agreement being intended to be and being for the sole and exclusive benefit of such persons and for the benefit of no other person except that the covenants and indemnities of the Corporation set out under the heading "Indemnity and Contribution" shall also be for the benefit of the Indemnified Party.

## 24. Severability

If any provision of this Agreement is determined to be void or unenforceable in whole or in part, it shall be deemed not to affect or impair the validity of any other provision of this Agreement and such void or unenforceable provision shall be severable from this Agreement.

#### 25. Singular and Plural, etc.

Unless otherwise expressly provided in this Agreement, words importing only the singular number include the plural and vice versa and words importing gender include all genders. References to "Sections", "subsections" or "subparagraphs" are to the appropriate section, subsection or subparagraph of this Agreement.

## 26. Governing Law

This Agreement shall be governed by and construed in accordance with the laws of the Province of Ontario and the laws of Canada applicable therein and the parties hereto irrevocably attorn to the jurisdiction of the courts of such province.

## 27. Language

The parties hereto confirm their express wish that this Agreement and all documents and agreements directly or indirectly relating thereto be drawn up in the English language.

Les parties reconnaissent leur volonté express que la présente convention ainsi que tous les documents et contrats s'y rattachant directement ou indirectement soient rédigés en anglais.

## 28. Counterparts

This Agreement may be executed by any one or more of the parties to this Agreement in any number of counterparts, each of which shall be deemed to be an original, but all such counterparts shall together constitute one and the same agreement.

#### 29. Facsimile and Electronic Transmission

The Corporation and the Agent shall be entitled to rely on delivery by facsimile or other electronic means of an executed copy of this Agreement and acceptance by the Corporation and the Agent of that delivery shall be legally effective to create a valid and binding agreement between the Corporation and the Agent in accordance with the terms of this Agreement.

## [REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]

If the foregoing is in accordance with your understanding and is agreed to by you, please signify your acceptance by executing this letter where indicated below and returning the same to the Agent upon which this letter as so accepted shall constitute an agreement between us.

Yours very truly,

## **BLOOM BURTON SECURITIES INC.**

By: <u>(signed)</u> "Jolyon Burton" President and Head of Investment Banking

The foregoing offer is accepted and agreed to as of the date first above written.

# TITAN MEDICAL INC.

By: <u>(signed) "David McNally"</u> David McNally

President and CEO

# SCHEDULE "A"

## CONVERTIBLE SECURITIES

## **OPTIONS**

| EXERCISE PRICE | NUMBER     | EXPIRY DATE       |
|----------------|------------|-------------------|
| 0.43           | 1,500,000  | April 17, 2024    |
| 0.50           | 500,000    | February 7, 2024  |
| 0.56           | 663,368    | August 2, 2018    |
| 0.57           | 8,325,572  | January 17, 2024  |
| 0.83           | 49,591     | March 21, 2018    |
| 0.96           | 305,107    | December 20, 2018 |
| 1.00           | 3,171,558  | August 24, 2021   |
| 1.02           | 183,587    | December 23, 2020 |
| 1.08           | 564,292    | January 27, 2021  |
| 1.39           | 19,746     | December 16, 2019 |
| 1.51           | 16,796     | August 11, 2020   |
| 1.72           | 461,139    | June 9, 2020      |
| 1.76           | 106,096    | March 6, 2019     |
| 1.94           | 362,080    | May 21, 2019      |
| Total          | 16,228,932 |                   |

# WARRANTS

Below is a table that sets out the various series of the warrants of the Corporation that were previously issued, using historic rates. The disclosure of the potential proceeds in the last column of the table below assumes all warrants are exercised on or before the expiry date. However, there is no assurance that any warrants will be exercised prior to their expiry.

| Ticker<br>Symbol | Issue Date         | Expiry Date        | Number<br>Issued | Number<br>Outstanding | Exercise<br>Price<br>(CDN \$) | Potential<br>Proceeds<br>(CDN \$) |
|------------------|--------------------|--------------------|------------------|-----------------------|-------------------------------|-----------------------------------|
| TMD.WT.C         | March 13, 2013     | March 13, 2018     | 6,260,763        | 5,260,705             | \$1.25                        | 6,575,881                         |
| TMD.WT.F         | November 16, 2015  | November 16, 2020  | 7,012,195        | 7,012,195             | \$1.60                        | 11,219,512                        |
| TMD.WT.G         | February 12, 2016  | February 12, 2021  | 11,670,818       | 11,600,818            | \$1.00                        | 11,600,818                        |
| TMD.WT.G         | February 23, 2016  | February 12, 2021  | 1,746,789        | 1,746,789             | \$1.00                        | 1,746,789                         |
| TMD.WT.H         | March 31, 2016     | March 31, 2021     | 15,054,940       | 15,054,940            | \$1.20                        | 18,065,928                        |
| TMD.WT.H         | April 14, 2016     | March 31, 2021     | 2,258,241        | 2,258,241             | \$1.20                        | 2,709,889                         |
| TMD.WT.I         | September 20, 2016 | September 20, 2021 | 17,083,333       | 17,083,333            | \$0.75                        | 12,812,500                        |
| TMD.WT.I         | October 27, 2016   | September 20, 2021 | 2,030,000        | 2,030,000             | \$0.75                        | 1,522,500                         |
| NOT LISTED       | March 16, 2017     | March 16, 2019     | 10,733,600       | 10,366,065            | \$0.40                        | 4,146,426                         |
| NOT LISTED       | March 16, 2017     | March 16, 2021     | 10,733,600       | 10,733,600            | \$0.50                        | 5,366,800                         |
| TOTAL            |                    |                    | 84,584,279       | 83,146,686            |                               | 75,767,043                        |

# BROKER WARRANTS

| Issue Date         | Number Issued | Exercise Price |
|--------------------|---------------|----------------|
| February 12, 2016  | 794,168       | \$0.90         |
| February 23, 2016  | 122,275       | \$0.90         |
| March 31, 2016     | 1,032,845     | \$1.00         |
| April 14, 2016     | 158,076       | \$1.00         |
| September 20, 2016 | 1,165,494     | \$0.60         |
| October 27, 2016   | 142,100       | \$0.60         |
| March 16, 2017     | 1,500,155     | \$0.35         |
| TOTAL              | 4,915,113     |                |

#### **SCHEDULE "B"**

## COMPLIANCE WITH UNITED STATES SECURITIES LAWS

## A. Definitions

Capitalized terms used in this Schedule "B" and not defined herein shall have the meanings ascribed thereto in the Agreement to which this Schedule is attached, and the following terms shall have the meanings indicated:

- (a) "Accredited Investor" means an institutional "accredited investor" within the meaning of Rule 501(a)(1), (2), (3) or (7) of Regulation D;
- (b) "Dealer Covered Person" has the meaning set forth below;
- (c) "Directed Selling Efforts" means "directed selling efforts" as that term is defined in Regulation S. Without limiting the foregoing, but for greater clarity in this Schedule "B", it means, subject to the exclusions from the definition of directed selling efforts contained in Regulation S, any activity undertaken for the purpose of, or that could reasonably be expected to have the effect of, conditioning the market in the United States for any of the Offered Units, the Unit Shares, the Warrants or the Warrant Shares and includes the placement of any advertisement in a publication with a general circulation in the United States that refers to the offering of any of such securities;
- (d) "Disqualification Event" has the meaning set forth below;
- (e) "QIB Letter" has the meaning set forth below.
- (f) "Qualified Institutional Buyer" means a "qualified institutional buyer" as that term is defined in Rule 144A;
- (g) "Regulation D" means Regulation D promulgated under the U.S. Securities Act;
- (h) "Regulation D Securities" has the meaning set forth below;
- (i) "Regulation S" means Regulation S promulgated under the U.S. Securities Act;
- (j) "Rule 144A" means Rule 144A under the U.S. Securities Act;
- (k) "Substantial U.S. Market Interest" means a "substantial U.S. market interest" as that term is defined in Regulation S;
- (1) "U.S. Exchange Act" means the United States Securities Exchange Act of 1934, as amended; and
- (m) "U.S. Subscription Agreement" has the meaning set forth below.

#### B. Representations, Warranties and Covenants of the Agent

The Agent acknowledges and agrees that the Offered Units, the Unit Shares, the Warrants and the Warrant Shares have not been and will not be registered under the U.S. Securities Act or applicable state securities laws, and the Offered Units, the Unit Shares and the Warrants may be offered and sold only in transactions exempt from, or not subject to, the registration requirements of the U.S. Securities Act and any applicable state securities laws. Accordingly, the Agent represents, warrants and covenants to the Corporation that:

- 1. None of the Agent, the U.S. Selling Group Member, their respective affiliates or any person acting on any of its or their behalf has offered or will offer any Offered Units, Unit Shares or Warrants except: (a) in an "offshore transaction," as such term is defined in Regulation S, outside the United States to non-U.S. Persons in accordance with Rule 903 of Regulation S; or (b) in the United States to, or for the account or benefit of, persons in the United States or U.S. Persons to Qualified Institutional Buyers or Accredited Investors purchasing pursuant to the exemption from the registration requirements of the U.S. Securities Act under Rule 506(b) of Regulation D and in compliance with similar exemptions under applicable state securities laws as provided in paragraphs 2 through 12 below. Accordingly, none of the Agent, the U.S. Selling Group Member, their respective affiliates or any person acting on any of its or their behalf, has made or will make (except as permitted in paragraphs 2 through 12 below): (i) any offer to sell, or any solicitation of an offer to buy, any Offered Units, Unit Shares or Warrants to any purchaser unless, at the time the buy order was or is originated, the purchaser was outside the United States, not a U.S. Person and not acting for the account or benefit of a person in the United States, not a U.S. Person and not acting for the account or benefit of a person, or the Agent, the U.S. Selling Group Member, their respective affiliates or person acting on its or their behalf reasonably believed that such purchaser was outside the United States, not a U.S. Person and not acting for the account or benefit of a person; or the Purchaser was outside the United States, not a U.S. Person and not acting for the account or benefit of a person; or (ii) any Directed Selling Efforts.
- 2. It has not entered and will not enter into any contractual arrangement with respect to the offer and sale of the Offered Units, the Unit Shares or the Warrants, except with the U.S. Selling Group Member, its affiliates, any Selling Firm or with the prior written consent of the Corporation. It shall require the Selling Group Member, its affiliates and any Selling Firm to agree in writing, for the benefit of the Corporation, to comply with, and shall use its best efforts to ensure that the Selling Group Member, its affiliates and any Selling Firm complies with, the same provisions of this Schedule "B" as apply to such Agent as if such provisions applied to the U.S. Selling Group Member, its affiliates and any Selling Firm.
- 3. All offers and sales of Offered Units, Unit Shares and Warrants in the United States or to, or for the account or benefit of, persons in the United States, or U.S. Persons, have been and shall be made only by the U.S. Selling Group Member or a Selling Firm, which is a U.S. broker-dealer registered pursuant to Section 15(b) of the U.S. Exchange Act and under the securities laws of each state in which offers and sales were or will be made (unless exempted from the respective state's broker-dealer registration requirements) and in good standing with the Financial Industry Regulatory Authority, Inc., in compliance with all applicable U.S. federal and state broker-dealer requirements.
- 4. Offers of Offered Units, Unit Shares and Warrants in the United States to, or for the account or benefit of, persons in the United States and U.S. Persons have not been made and shall not be made: (i) by any form of "general solicitation" or "general advertising" (as those terms are used in Rule 502(c) of Regulation D), including, without limitation, advertisements, articles, notices or other communications published in any newspaper, magazine or similar media, or on the internet, or broadcast over radio, television or the internet, or any seminar or meeting whose attendees have been invited by general solicitation or general advertising or (ii) or has taken or will take any action that would constitute a public offering of the Offered Units in the United States within the meaning of Section 4(a)(2) of the U.S. Securities Act.

- 5. The Agent, acting only through the U.S. Selling Group Member or a Selling Firm, has offered and will offer the Offered Units, the Unit Shares and the Warrants in the United States or to, or for the account or benefit of, persons in the United States and U.S. Persons only to offerees with respect to which the Agent, the U.S. Selling Group Member or the Selling Firm has a pre-existing business relationship and has reasonable grounds to believe and does believe, are either Qualified Institutional Buyers or Accredited Investors (and in compliance with Rule 506(b) of Regulation D and applicable state securities laws).
- 6. Each offeree of Offered Units, Unit Shares or Warrants in the United States, who is a U.S. Person or who is acting for the account or benefit of a person in the United States or a U.S. Person has been or shall be provided with a copy of the final U.S. Memorandum, in the form agreed to by the Corporation and the Agent, including the Prospectus Supplement. Prior to any sale of Offered Units, Unit Shares or Warrants to, or for the account of benefit of, a person in the United States or a U.S. Person or to a person who was offered such securities in the United States, each such purchaser shall be provided with a copy of the final U.S. Memorandum, including the Prospectus Supplement, and no other written material was used in connection with the offer or sale of the Offered Units, the Unit Shares or the Warrants to, or for the account or benefit of, persons in the United States or U.S. Persons.
- 7. Prior to the completion of any sale by the Corporation of Offered Units in the United States or to, or for the account or benefit of, persons in the United States or U.S. Persons, (i) each such purchaser that is a Qualified Institutional Buyer thereof will be required to execute a Qualified Institutional Buyer Letter in the form attached as Exhibit I to the final U.S. Memorandum (the "QIB Letter") or (ii) each such purchaser that is an Accredited Investor thereof will be required to execute a subscription agreement in the form attached as Exhibit II to the final U.S. Memorandum (the "U.S. Subscription Agreement").
- 8. Prior to the Closing Date, the Agent will provide the Corporation and the transfer agent of the Corporation with a list of all purchasers of the Offered Units in the United States, who are U.S. Persons, who are purchasing for the account or benefit of persons in the United States or U.S. Persons or who were offered Offered Units in the United States. Prior to the Closing Date, the Agent will provide the Corporation with copies of all QIB Letters and U.S. Subscription Agreements, duly executed by such purchasers for acceptance by the Corporation.
- 9. At Closing, each of the Agent, the U.S. Selling Group Member and any applicable Selling Firm that has offered or sold Offered Units, Unit Shares or Warrants to, or for the account or benefit of, persons in the United States or U.S. Persons will provide a certificate, substantially in the form of Exhibit 1 to this Schedule "B", relating to the manner of the offer and sale of the Offered Units, the Unit Shares and the Warrants to, or for the account or benefit of, persons in the United States and U.S. Persons or the Agent and such persons will be deemed to have represented and warranted that no offers or sales of the Offered Units, the Unit Shares or the Warrants were made to, or for the account or benefit of, persons in the United States or U.S. Persons.
- 10. None of the Agent, the U.S. Selling Group Member, their respective affiliates or any person acting on any of its or their behalf has taken or will take, directly or indirectly, any action in violation of Regulation M under the U.S. Exchange Act with respect to the offer or sale of the Offered Units, the Unit Shares or the Warrants.

- 11. As of the Closing Date, with respect to Offered Units, Unit Shares and Warrants to be offered and sold hereunder in reliance on Rule 506(b) of Regulation D (the "Regulation D Securities"), the Agent represents that none of (i) the Agent or the U.S. Selling Group Member, (ii) the Agent or the U.S. Selling Group Member's general partners or managing members, (iii) any of the Agent's or the U.S. Selling Group Member's directors, executive officers or other officers participating in the offering of the Regulation D Securities, (iv) any of the Agent's or the U.S. Selling Group Member's general partners' or managing members, (iv) any of the Agent's or the U.S. Selling Group Member's general partners' or managing members, directors, executive officers or other officers participating in the offering of the Regulation D Securities of (v) any of the Agent's or the U.S. Selling Group Member's general partners' or managing members' directors, executive officers or other officers participating in the offering of the Regulation D Securities or (v) any other person associated with any of the above persons, including any Selling Firm and any such persons related to such Selling Firm, that has been or will be paid (directly or indirectly) remuneration for solicitation of purchasers in connection with sale of Regulation D Securities (each, a "Dealer Covered Person" and, collectively, the "Dealer Covered Persons"), is subject to any of the "Bad Actor" disqualifications described in Rule 506(d)(1) under Regulation D (a "Disqualification Event").
- 12. As of the Closing Date, the Agent represents that it is not aware of any person (other than any Dealer Covered Person) that has been or will be paid (directly or indirectly) remuneration for solicitation of purchasers in connection with the sale of any Regulation D Securities.

#### C. Representations, Warranties and Covenants of the Corporation

The Corporation represents, warrants, covenants and agrees that, as of the date hereof and the Closing Date:

- 1. The Corporation is a "foreign issuer", within the meaning of Regulation S, and reasonably believes that there is no Substantial U.S. Market Interest in the Offered Units, the Unit Shares, the Warrant Shares or any class of the Corporation's equity securities.
- 2. The Corporation is not, and as a result of the sale of the Offered Units, the Unit Shares and the Warrants and the issuance of the Warrant Shares will not be, an "investment company", as defined in the United States Investment Company Act of 1940, as amended, registered or required to registered under such Act.
- 3. During the period in which the Offered Units, the Unit Shares and the Warrants are offered for sale, none of it, its affiliates, or any person acting on its or their behalf (other than the Agent, the U.S. Selling Group Member, any of its or their respective affiliates, or any person acting on any of its or their behalf in respect of which no representation, warrant, covenant or agreement is made): (i) has made or will make any Directed Selling Efforts; or (ii) has engaged in or will engage in any form of "general advertising" (as those terms are used in Rule 502(c) of Regulation D) with respect to offers or sales of the Offered Units, the Unit Shares or the Warrants to, or for the account or benefit of, persons in the United States or U.S. Persons, including, without limitation, advertisements, articles, notices or other communications published in any newspaper, magazine or similar media or on the internet, or broadcast over radio, television or the internet, or any seminar or meeting whose attendees have been invited by general solicitation or general advertising or has taken or will take any action that would constitute a public offering of the Offered Units in the United States within the meaning of Section 4(a)(2) of the U.S. Securities Act.
- 4. The Corporation has not, for a period of six months prior to the commencement of the Offering, sold, offered for sale or solicited any offer to buy any of its securities in a manner that would be integrated with the offer and sale of the Offered Units, the Unit Shares or the Warrants and would cause the exemption from registration set forth in Rule 506(b) of Regulation D to become unavailable with respect to the offer and sale of the Offered Units, the Unit Shares or the Warrants to, or for the account or benefit of, persons in the United States or U.S. Persons.

- 5. During the period in which the Offered Units, the Unit Shares and the Warrants are offered for sale, none of the Corporation, its affiliates, or any person acting on any of its or their behalf (other than the Agent, the U.S. Selling Group Member, any of its or their respective affiliates or any person acting on its or their behalf, in respect of which no representation, warranty, covenant or agreement is made) has taken or will take any action (i) in violation of Regulation M under the U. S. Exchange Act in connection with the offer or sale of the Offered Units, the Unit Shares or the Warrant Shares or (ii) that would cause the exemption afforded by Rule 506(b) of Regulation D to be unavailable for offers and sales of the Offered Units, the Unit Shares or the Warrants in the United States or to, or for the account or benefit of, persons in the United States or U.S. Persons in accordance with the Agreement, or the exclusion from registration afforded by Rule 903 of Regulation S to be unavailable for offers and sales of the Unit Shares or the Warrants outside the United States to non-U.S. Persons in accordance with the Agreement.
- 6. Within 15 days of the first sale of the Offered Units, the Unit Shares or the Warrants in the United States to, or for the account or benefit of, persons in the United States or U.S. Persons, the Corporation will file a Form D, Notice of Sale, with the United States Securities and Exchange Commission and any applicable state securities commissions in connection with the offer and sale of such securities.
- Neither the Corporation nor any of its predecessors or affiliates has been subject to any order, judgment or decree of any court of competent jurisdiction, temporarily, preliminarily or permanently enjoining such person for failure to comply with Rule 503 of Regulation D.
- 8. Except with respect to offers and sales in accordance with this Agreement (including this Schedule "B") to, or for the account or benefit of, persons in the United States or U.S. Persons that are either Accredited Investors or Qualified Institutional Buyers in reliance upon the exemption from registration set forth in Rule 506(b) of Regulation D, none of the Corporation, its affiliates, or any person acting on its or their behalf (other than the Agent, the U.S. Selling Group Member, any of its or their respective affiliates or any person acting on any of its or their behalf, in respect of which no representation, warranty, covenant or agreement is made), has made or will make: (A) any offer to sell, or any solicitation of an offer to buy, any Offered Units, Unit Shares or Warrants in the United States or to, or for the account or benefit of, a person in the United States or a U.S. Person; or (B) any sale of Offered Units, Unit Shares or Warrants unless, at the time the buy order was or will have been originated, the purchaser is (i) outside the United States, not a U.S. Person and not acting for the account or benefit of a person in the United States or a U. S. Person or (ii) the Corporation, its affiliates, and any person acting on their behalf reasonably believes that the purchaser is outside the United States, not a U.S. Person acting or their behalf reasonably believes that the purchaser is outside the United States or a U.S. Person acting for the account or benefit of a person in the United States or a U.S. Person acting on their behalf reasonably believes that the purchaser is outside the United States or a U.S. Person acting or their behalf reasonably believes that the purchaser is outside the United States, not a U.S. Person acting for the account or benefit of a person in the United States or a U.S. Person acting for the account or benefit of a person in the United States or a U.S. Person acting for the account or benefit of a person in the United States or a U.S. Person acting on their behalf re
- 9. As of the Closing Date, with respect to the offer and sale of the Regulation D Securities, none of the Corporation, any of its predecessors, any "affiliated" (as such term is defined in Rule 501(b) of Regulation D) issuer, any director, executive officer or other officer of the Corporation participating in the offering of the Regulation D Securities, any beneficial owner of 20% or more of the Corporation's outstanding voting equity securities, calculated on the basis of voting power, or any promoter (as that term is defined in Rule 405 under the U.S. Securities Act) connected with the Corporation in any capacity at the time of sale of the Regulation D Securities (other than any Dealer Covered Person, as to whom no representation is made) is subject to any Disqualification Event.

10. As of the Closing Date, the Corporation is not aware of any person (other than any Dealer Covered Person) that has been or will be paid (directly or indirectly) remuneration for solicitation of purchasers in connection with the sale of any Regulation D Securities.

## EXHIBIT 1

## **TO SCHEDULE "B"**

## AGENT'S CERTIFICATE

In connection with the private placement to, or for the account or benefit of, persons in the United States and U.S. Persons of the Offered Units of Titan Medical Inc. (the "**Corporation**") pursuant to the agency agreement dated June 26, 2017 by and between the Corporation and the Agent (the "**Agreement**"), the undersigned do hereby certify as follows:

- 1. (the "U.S. Selling Group Member") was on the date of each offer and sale of Offered Units, Unit Shares and Warrants in the United States or to, or for the account or benefit of, persons in the United States or U.S. Persons, and is on the date hereof, a duly registered broker-dealer with the United States Securities and Exchange Commission and under the securities laws of each state in which such offers and sales were made (unless exempted from the respective state's broker- dealer registration requirements) and a member of, and in good standing with, the Financial Industry Regulatory Authority, Inc.
- 2. All offers and sales of the Offered Units, the Unit Shares and the Warrants in the United States or to, or for the account or benefit of, persons in the United States and U.S. Persons have been conducted by us through the U.S. Selling Group Member and in accordance with the terms of the Agency Agreement (including Schedule "B" thereto) and all applicable U.S. federal and state broker-dealers requirements.
- 3. Immediately prior to offering Offered Units, the Unit Shares and the Warrants to each prospective purchasers in the United States, who was a U.S. Person or who was acting for the account or benefit of a person in the United States or a U.S. Person (each, a "U.S. Offeree"), we had reasonable grounds to believe and did believe that each U.S. Offeree was either an Accredited Investor or a Qualified Institutional Buyer and, on the date hereof, we continue to believe that each U.S. Offeree purchasing the Offered Units from the Corporation is either an Accredited Investor or a Qualified Institutional Buyer.
- 4. Each U.S. Offeree of Offered Units, Unit Shares or Warrants was provided with a copy of the final U.S. Memorandum, in the form agreed to by the Corporation and the Agent, including the Prospectus Supplement, and each purchaser of Offered Units, Unit Shares or Warrants who (i) is in the United States, (ii) is a U.S. Person, (iii) is acting for the account or benefit of a person in the United States or a U.S. Person or (iv) was offered Offered Units, Unit Shares or Warrants in the United States, was provided with a copy of the final U.S. Memorandum, including the Prospectus Supplement, and no other written material was used in connection with the offer and sale of the Offered Units, the Unit Shares or the Warrants to, or for the account or benefit of, persons in the United States or U.S. Persons;
- 5. No form of "general solicitation" or "general advertising" (as those terms are used in Rule 502(c) of Regulation D) was used by us, including, without limitation, advertisements, articles, notices or other communications published in any newspaper, magazine or similar media or on the internet or broadcast over radio, television or the internet, or any seminar or meeting whose attendees had been invited by general solicitation or general advertising, in connection with the offer and sale of the Offered Units, the Unit Shares or the Warrants to, or for the account or benefit of, persons in the United States or U.S. Persons.

- 6. Prior to any sale of Offered Units, the Unit Shares or Warrants to a U.S. Offeree, we caused each such U.S. Offeree who is (i) a Qualified Institutional Buyer to execute and a QIB Letter in the form of Exhibit I to the U.S. Memorandum or (ii) an Accredited Investor to execute a U.S. Subscription Agreement substantially in the form of Exhibit II to the U.S. Memorandum.
- 7. Neither we nor any of our affiliates have taken or will take, directly or indirectly, any action in violation of Regulation M under the U.S. Exchange Act with respect to the offer or sale of the Offered Units, the Unit Shares or the Warrants.
- 8. None of (i) the undersigned, (ii) the undersigned's general partners or managing members, (iii) any of the undersigned's directors, executive officers or other officers participating in the offering of the Regulation D Securities, (iv) any of the undersigned's general partners' or managing members' directors, executive officers or other officers participating in the offering of the Regulation D Securities or (v) any other person associated with any of the above persons, including any Selling Firm and any such persons related to such Selling Firm, that has been or will be paid (directly or indirectly) remuneration for solicitation of purchasers in connection with sale of Regulation D Securities (each, a "Dealer Covered Person" and, collectively, the "Dealer Covered Persons"), is subject to any to any of the "Bad Actor" disqualifications described in Rule 506(d)(1) under Regulation D (a "Disqualification Event").
- 9. The undersigned represents that it is not aware of any person (other than any Dealer Covered Person) that has been or will be paid (directly or indirectly) remuneration for solicitation of purchasers in connection with the sale of any Regulation D Securities.
- 10. The offering of the Offered Units, the Unit Shares or the Warrants to, or for the account or benefit of, persons in the United States or U.S. Persons has been conducted by us in accordance with the terms of the Agreement, including Schedule "B" thereto.

Capitalized terms used in this certificate have the meanings given to them in the Agreement, including Schedule "B" attached thereto, unless otherwise defined herein.

| DATED this day of, 2017. |                             |
|--------------------------|-----------------------------|
| [AGENT]                  | [U.S. SELLING GROUP MEMBER] |
| By:                      | Ву:                         |
| Name:                    | Name:                       |
| Title:                   | Title:                      |
|                          |                             |

# SCHEDULE "C"

# **CORPORATION IP**

**Patents** 

| Region | Application Number               | Publication Number         | IP Right Number |
|--------|----------------------------------|----------------------------|-----------------|
| AU     | Not assigned                     | -                          | -               |
| CA     | 2913943                          | 2913943                    | -               |
| CA     | Not assigned                     | -                          | -               |
| CN     | Not assigned                     | -                          | -               |
| CN     | 201380078618                     | 105431106                  | -               |
| EP     | 11876682.3                       | 2785267                    | -               |
| EP     | 17171068.4                       | -                          | -               |
| EP     | 15866790.7                       | -                          | -               |
| IN     | 201717021787                     | -                          | -               |
| IN     | 11772/DELNP/2015                 | 11772/DELNP/2015           | -               |
| JP     | Not assigned                     | -                          | <u>.</u>        |
| JP     | 2016-520200                      | 2016528946                 | _               |
| US     | 62/377,080                       | -                          | _               |
| US     | 14/899,768                       | 20160143633                |                 |
| US     | 14/279,828                       | 20140249546                |                 |
| US     | 14/261,614                       | 20140276956                | -               |
| US     | 14/261,014                       | 20140270930                | -               |
| US     | 13/660,328                       | 20140230393<br>20130197538 | -               |
| US     | <i>,</i>                         | 20130197338                | -               |
| US     | 15/494,740<br>15/490,098         | -                          | -               |
| US     |                                  | -                          | -               |
|        | 15/485,720                       | -                          | -               |
| US     | 15/593,000                       | -                          | -               |
| US     | 15/442,070<br>DCT/CA 2017/000005 | -                          | -               |
| WO     | PCT/CA2017/000085                | -                          | -               |
| WO     | PCT/CA2016/000193                | 2017008142                 | -               |
| WO     | PCT/CA2016/000059                | 2016165004                 | -               |
| WO     | PCT/CA2016/000007                | 2016109887                 | -               |
| WO     | PCT/CA2016/000006                | 2016109886                 | -               |
| WO     | PCT/CA2015/000600                | 2016176755                 | -               |
| WO     | PCT/CA2016/000054                | 2016134452                 | -               |
| WO     | PCT/CA2016/000215                | 2017031568                 | -               |
| WO     | PCT/CA2016/000112                | 2016201544                 | -               |
| WO     | PCT/CA2017/000011                | -                          | -               |
| WO     | PCT/CA2017/000056                | -                          | -               |
| WO     | PCT/CA2016/000316                | -                          | -               |
| WO     | PCT/CA2017/000078                | -                          | -               |
| WO     | PCT/CA2016/000300                | -                          | -               |
| EP     | 13887243.7                       | 2996613                    | 2996613         |
| EP     | 11874984.5                       | 2773277                    | 2773277         |
| US     | 15/211,295                       | 20160346051                | 9,681,922US     |
|        | 15/294,477                       | 20170027656                | 9,629,688       |
| US     | 14/831,045                       | 20160030122                | 9,421,068       |
| US     | 14/302,723                       | 20140316435                | 9,149,339       |
| US     | 13/660,615                       | 20130197697                | 8,930,027       |
| US     | 13/494,852                       | 20120253513                | 8,768,509       |
| US     | 13/106,306                       | -                          | 9,033,998       |
| US     | 12/449,779                       | 20100036393                | 8,792,688       |
| US     | 12/227,582                       | 20100030377                | 8,224,485       |
| US     | 12/655,675                       | -                          | 8,306,656       |
| US     | 12/583,351                       | -                          | 8,332,072       |
| US     | 12/459,292                       | -                          | 8,347,754       |
| US     | 09/474,924                       | -                          | 6,358,196       |

# <u>Trademarks</u>

<u>Region</u> US US <u>Serial Number</u> 87222823 87222834 <u>Title</u> T TITAN MEDICAL (Stylized/Design) T (Stylized)

# SCHEDULE "D"

# LICENSOR CONTRACTS

# **Corporation as Licensor**

- Synergist Medical Inc., a predecessor to the Corporation, entered into a patent agreement with Reiza Rayman on May 12, 2008 pursuant to which Synergist Medical Inc. granted to Rayman certain exclusive rights in and to U.S. Patent No. 6,358,196.
- Synergist Medical Inc., a predecessor to the Corporation, entered into a patent agreement with John D. Unsworth on May 1, 2008 pursuant to which Synergist Medical Inc. granted to Unsworth certain exclusive rights in and to U.S. Patent Nos. 8,224,485, 8,768,509, 8,792,688, 9,421,068, and 9,681,922 and U.S. Patent Application No. 15/490,098.

# SCHEDULE "E"

# LICENSING AGREEMENTS

# **Corporation as Licensee**

- The Corporation entered into a licence agreement with Columbia University effective February 3, 2012 pursuant to which the Corporation received certain exclusive rights to intellectual property relating to a robotic surgical technology for use in single-port surgery.
- The Corporation entered into a license agreement with Mayo Foundation for Medical Education and Research effective December 14, 2015, pursuant to which the Corporation received certain rights to intellectual property developed by David W. Larson, M.D., Mayo Clinic.

NOT FOR DISTRIBUTION TO UNITED STATES NEWSWIRE SERVICES OR FOR DISSEMINATION IN THE UNITED STATES



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## TITAN MEDICAL INC. ANNOUNCES FILING OF FINAL PROSPECTUS FOR MARKETED OFFERING OF UNITS

Toronto, ON – June 27, 2017 – Titan Medical Inc. ("Titan" or the "Company") (TSX: TMD) (OTCQB: TITXF) announced today that it has filed a final short form prospectus in connection with a proposed marketed offering of units of the Company (the "Units") for minimum gross proceeds of CDN\$7,000,000 (46,666,666 Units) and maximum gross proceeds of CDN\$15,000,000 (100,000,000 Units) (the "Offering") at a price of CDN\$0.15 per Unit.

Each Unit will be comprised of one common share of the Company (**'Common Shares**'') and one Common Share purchase warrant (each full warrant a "**Warrant**", and together with the Units and Common Shares the "**Securities**") at an exercise price of CDN\$0.20 per share prior to expiry 60 months after the initial closing of the Offering. The Offering may be completed in multiple closings provided that the minimum gross proceeds of CDN\$7,000,000 is raised in the first closing and will be undertaken on a "best efforts" agency basis in the provinces of Ontario, British Columbia and Alberta pursuant to the Company's final short form prospectus dated June 27, 2017 (the "**Prospectus**"), filed with securities regulators in Ontario, British Columbia and Alberta, and may be undertaken in the United States pursuant to exemptions from the registration requirements of the U.S. Securities Act and applicable state laws. It is expected that the first closing of the Offering will occur on June 29, 2017.

The Company has entered into an agency agreement with Bloom Burton Securities Inc. as the Company's sole agent for the Offering (the 'Agent'). The price of each Unit and the exercise price and term of each Warrant were determined by negotiation between the Company and the Agent in the context of the market. The Securities may also be offered for sale in the United States through United States registered broker-dealers appointed by the Agent as sub-agents through an exempt private placement.

The Company has also applied, and received conditional approval, to list the Common Shares on the Toronto Stock Exchange (the "TSX"). The Offering is subject to a number of conditions, including, without limitation, receipt of all regulatory approvals and satisfaction of the conditions to the approval of the TSX. The net proceeds of the Offering will be used to fund continued development work in connection with the Company's SPORT Surgical System, as well as for working capital and other general corporate purposes. Further details are disclosed in the Prospectus, available at www.sedar.com.

#### About Titan Medical Inc.

Titan Medical Inc. is a Canadian public company focused on research and development through to the planned commercialization of computer-assisted robotic surgical technologies for application in minimally invasive surgery ("MIS"). The Company is currently developing the SPORT Surgical System, a single-port robotic surgical system. The SPORT Surgical System is comprised of a surgeon-controlled patient cart that includes a 3D high definition vision system and multi-articulating instruments for performing MIS procedures, and a surgeon workstation that provides the surgeon with an advanced ergonomic interface to the patient cart and a 3D endoscopic view inside the patient's body during MIS procedures. With the SPORT Surgical System, the Company aims to pursue a broad set of surgical indications, including general abdominal, gynecologic and urologic procedures.

For more information, please visit the Company's website at www.titanmedicalinc.com.

### Forward-Looking Statements

This news release contains "forward-looking statements" which reflect the current expectations of management of the Company's future growth, results of operations, performance and business prospects and opportunities. Wherever possible, words such as "may", "would", "could", "will", "anticipate", "believe", "plan", "expect", "intend", "estimate", "potential for" and similar expressions have been used to identify these forward-looking statements. These statements, including statements with respect to the use of the net proceeds of the Offering and the anticipated listing of the Common Shares on the TSX, reflect management's current beliefs with respect to future events and are based on information currently available to management. Forward-looking statements involve significant risks, uncertainties and assumptions. Many factors could cause the Company's actual results, performance or achievements to be materially different from any future results, performance or achievements that may be expressed or implied by such forward-looking statements, including, without limitation, those listed in the "Risk Factors" section of the Company's Annual Information Form dated March 31, 2017 (which may be viewed at www.sedar.com). Should one or more of these risks or uncertainties materialize, or should assumptions underlying the forward looking statements may vary materially from those expressed or implied by the forward-looking statements contained in this news release. These factors should be considered carefully, and prospective investors should not place undue reliance on the forward-looking statements. Although the forward-looking statements contained in the news release are based upon what management currently believes to be reasonable assumptions, the Company cannot assure prospective investors that actual results, performance or achievements will be consistent with these forward-looking statements.

### **U.S. Securities Law Caution**

The securities described herein have not been, and will not be, registered under the United States Securities Act of 1933, as amended (the "U.S. Securities Act"), or any state securities laws, and accordingly, may not be offered or sold to, or for the account or benefit of, persons in the United States or "U.S. persons," as such term is defined in Regulation S promulgated under the U.S. Securities Act ("U.S. Persons"), except in compliance with the registration requirements of the U.S. Securities Act and applicable state securities requirements or pursuant to exemptions therefrom. This press release does not constitute an offer to sell or a solicitation of an offer to buy any of the Company's securities to, or for the account or benefit of, persons in the United States or U.S. Persons.

Neither TSX nor its Regulation Services Provider (as that term is defined in the policies of the TSX) accepts responsibility for the adequacy or accuracy of this release.

# CONTACT INFORMATION

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## TITAN MEDICAL INC. ANNOUNCES CLOSING OF PUBLIC OFFERING

Toronto, ON – (Marketwired – June 29, 2017) – Titan Medical Inc. (the "Company") (TSX: TMD) (OTCQB: TITXF) is pleased to announce that it closed its previously announced public offering (the "Offering") earlier today pursuant to an agency agreement (the "Agency Agreement") dated June 26, 2017 between the Company and Bloom Burton Securities Inc. (the "Agent").

The Company sold 48,388,637 units (each, a "Unit") under the Offering at a price of CDN \$0.15 per Unit for gross proceeds of CDN \$7,258,296. Each Unit is comprised of one common share of the Company (a "Common Share") and one warrant entitling the holder to purchase one Common Share at a price of CDN \$0.20 for a period of five years following today's date (the "Closing"). The net proceeds of the Offering will be used to fund continued development work in connection with the Company's SPORT Surgical System, as well as for working capital and other general corporate purposes.

The Common Shares sold under the Offering will be listed and posted for trading on the Toronto Stock Exchange under the symbol TMD at the opening on June 29, 2017.

The Units were qualified for sale by way of a prospectus dated June 26, 2017 (together, the **Prospectus**") filed by the Company in the Provinces of British Columbia, Alberta and Ontario. The Units were also offered for sale in the United States through United States registered broker-dealers appointed by the Agent as sub-agents pursuant to exemptions from the registration requirements of the U.S. Securities Act and applicable state laws.

#### **Related Party Transaction**

An aggregate of 1,445,973 Units were issued to insiders of the Company under the Offering for gross proceeds of \$216,896, which included all of the Company's directors and officers. Each ]insider subscription constitutes a "related party transaction" pursuant to Multilateral Instrument 61 101 – *Protection of Minority Security Holders in Special Transactions* ("**MI 61 101**"). In completing the insider subscriptions, the Company relied on the exemptions from the formal valuation and minority shareholder approval requirements of MI 61 101 set forth in sections 5.5(a) and 5.7(a) of MI 61 101, as the aggregate value of the insider subscription does not exceed 25% of the market capitalization of the Company.

The Company did not file a material change report more than 21 days before the expected closing of the Offering due to the limited time between the launch of the Offering and the Closing.

#### About Titan Medical Inc.

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For more information, please visit the Company's website at www.titanmedicalinc.com.

## Forward-Looking Statements

This news release contains "forward-looking statements" which reflect the current expectations of management of the Company's future growth, results of operations, performance and business prospects and opportunities. Wherever possible, words such as "may", "would", "could", "will", "anticipate", "believe", "plan", "expect", "intend", "estimate", "potential for" and similar expressions have been used to identify these forward-looking statements. These statements, including statements with respect to the use of the net proceeds of the Offering and the anticipated listing of the Common Shares on the TSX, reflect management's current beliefs with respect to future events and are based on information currently available to management. Forward-looking statements involve significant risks, uncertainties and assumptions. Many factors could cause the Company's actual results, performance or achievements to be materially different from any future results, performance or achievements that may be expressed or implied by such forward-looking statements, including, without limitation, those listed in the "Risk Factors" section of the Company's Annual Information Form dated March 31, 2017 (which may be viewed at www.sedar.com). Should one or more of these risks or uncertainties materialize, or should assumptions underlying the forward looking statements may vary materially from those expressed or implied by the forward-looking statements contained in this news release. These factors should be considered carefully, and prospective investors should not place undue reliance on the forward-looking statements. Although the forward-looking statements contained in the news release are based upon what management currently believes to be reasonable assumptions, the Company cannot assure prospective investors that actual results, performance or achievements will be consistent with these forward-looking statements.

### **U.S. Securities Law Caution**

The securities described herein have not been, and will not be, registered under the United States Securities Act of 1933, as amended (the "U.S. Securities Act"), or any state securities laws, and accordingly, may not be offered or sold to, or for the account or benefit of, persons in the United States or "U.S. persons," as such term is defined in Regulation S promulgated under the U.S. Securities Act ("U.S. Persons"), except in compliance with the registration requirements of the U.S. Securities Act and applicable state securities requirements or pursuant to exemptions therefrom. This press release does not constitute an offer to sell or a solicitation of an offer to buy any of the Company's securities to, or for the account or benefit of, persons in the United States or U.S. Persons.

Neither TSX nor its Regulation Services Provider (as that term is defined in the policies of the TSX) accepts responsibility for the adequacy or accuracy of this release.

# CONTACT INFORMATION

LHA Investor Relations Kim Sutton Golodetz (212) 838-3777 kgolodetz@lhai.com or Bruce Voss (310) 691-7100 bvoss@lhai.com

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# WARRANT INDENTURE

Providing for the Issue of Common Share Purchase Warrants

BETWEEN

# TITAN MEDICAL INC.

- and -

# COMPUTERSHARE TRUST COMPANY OF CANADA

Dated as of June 29, 2017

1

# ARTICLE I INTERPRETATION

| ARTICLL |                                                     | 1  |
|---------|-----------------------------------------------------|----|
| 1.1     | Definitions                                         | 1  |
| 1.2     | Number and Gender                                   | 7  |
| 1.3     | Interpretation Not Affected by Headings, Etc.       | 7  |
| 1.4     | Day Not a Business Day                              | 7  |
| 1.5     | Governing Law                                       | 7  |
| 1.6     | Currency                                            | 7  |
| 1.7     | Meaning of "Outstanding"                            | 7  |
| 1.8     | Severability                                        | 7  |
| 1.9     | Statutory References                                | 7  |
| ARTICLE | II ISSUE OF WARRANTS                                | 8  |
| 2.1     | Issue of Warrants                                   | 8  |
| 2.2     | Form and Terms of Warrants                          | 8  |
| 2.3     | Issue in Substitution for Lost Warrant Certificates | 9  |
| 2.4     | Non-Certificated Deposit                            | 9  |
| 2.5     | Warrantholder not a Shareholder                     | 11 |
| 2.6     | Warrants to Rank Pari Passu                         | 11 |
| 2.7     | Signing of Warrant Certificates                     | 12 |
| 2.8     | Certification by the Warrant Agent                  | 12 |
| 2.9     | Legended Warrant Certificates                       | 12 |
| 2.10    | Copy of Indenture                                   | 14 |
| ARTICLE | III EXCHANGE AND OWNERSHIP OF WARRANTS; NOTICES     | 14 |
| 3.1     | Exchange of Warrant Certificates                    | 14 |
| 3.2     | Registration of Warrants                            | 15 |
| 3.3     | Transfer of Warrants                                | 16 |
| 3.4     | Ownership of Certificates                           | 17 |
| 3.5     | Evidence of Ownership                               | 17 |
| 3.6     | Notices                                             | 18 |
| ARTICLE | IV EXERCISE OF WARRANTS                             | 18 |
| 4.1     | Method of Exercise of Warrants                      | 18 |
| 4.2     | Effect of Exercise of Warrants                      | 20 |
| 4.3     | Subscription for Less than Entitlement              | 21 |
|         |                                                     |    |

| 4.4     | No Fractional Common Shares                                                                                       | 21              |
|---------|-------------------------------------------------------------------------------------------------------------------|-----------------|
| 4.5     | Expiration of Warrant Certificates                                                                                | 22              |
| 4.6     | Cancellation of Surrendered Warrants                                                                              | 22              |
| 4.7     | Accounting and Recording                                                                                          | 22              |
| 4.8     | Prohibition on Exercise by U.S. Persons; Exception                                                                | 22              |
| ARTICLE | V ADJUSTMENT OF SUBSCRIPTION RIGHTS AND EXERCISE PRICE .                                                          | 24              |
| 5.1     | Adjustment of Exercise Price and Number of Common Shares Purchasable Upon Exercise                                | 24              |
| 5.2     | Rules Regarding Calculation of Adjustment of Exercise Price and Number of Common Shares Purchasable Upon Exercise | 29              |
| 5.3     | Postponement of Subscription                                                                                      | 31              |
| 5.4     | Notice of Adjustment of Exercise Price and Number of Common Shares Purchasable Upon Exercise                      | 32              |
| ARTICLE | VI PURCHASES BY THE COMPANY                                                                                       | 32              |
| 6.1     | Purchases of Warrants for Cancellation                                                                            | 32              |
| 6.2     | Optional Purchases by the Company                                                                                 | 32              |
| ARTICLE | VII COVENANTS OF THE COMPANY                                                                                      | 33              |
| 7.1     | Covenants of the Company                                                                                          | 33              |
| 7.2     | Warrant Agent's Remuneration and Expenses                                                                         | 34              |
| 7.3     | Performance of Covenants by Warrant Agent                                                                         | 34              |
| 7.4     | Securities Filings                                                                                                | 34              |
| 7.5     | Certificates of No Default                                                                                        | 35              |
| ARTICLE | VIII ENFORCEMENT                                                                                                  | 35              |
| 8.1     | Suits by Warrantholders                                                                                           | 35              |
| 8.2     | Limitation of Liability                                                                                           | 37<br><b>37</b> |
| ARTICLE | ARTICLE IX MEETINGS OF WARRANTHOLDERS                                                                             |                 |
| 9.1     | Right to Convene Meetings                                                                                         | 37              |
| 9.2     | Notice                                                                                                            | 37              |
| 9.3     | Chairman                                                                                                          | 38              |
| 9.4     | Quorum                                                                                                            | 38              |
| 9.5     | Power to Adjourn                                                                                                  | 38              |
| 9.6     | Show of Hands                                                                                                     | 38              |
| 9.7     | Poll and Voting                                                                                                   | 38              |
| 9.8     | Regulations                                                                                                       | 39              |
| 9.9     | Company, Warrant Agent and Warrantholders May be Represented                                                      | 40              |
|         |                                                                                                                   |                 |

| 9.10        | Powers Exercisable by Extraordinary Resolution             | 40 |
|-------------|------------------------------------------------------------|----|
| 9.11        | Meaning of Extraordinary Resolution                        | 41 |
| 9.12        | Powers Cumulative                                          | 41 |
| 9.13        | Minutes                                                    | 42 |
| 9.14        | Instruments in Writing                                     | 42 |
| 9.15        | Binding Effect of Resolutions                              | 42 |
| 9.16        | Holdings by Company Disregarded                            | 42 |
| ARTICLE X S | SUPPLEMENTAL INDENTURES                                    | 43 |
| 10.1        | Provision for Supplemental Indentures for Certain Purposes | 43 |
| 10.2        | Successor Companies                                        | 44 |
| ARTICLE XI  | CONCERNING THE WARRANT AGENT                               | 44 |
| 11.1        | Indenture Legislation                                      | 44 |
| 11.2        | Rights and Duties of Warrant Agent                         | 44 |
| 11.3        | Evidence, Experts and Advisers                             | 45 |
| 11.4        | Action by Warrant Agent to Protect Interest                | 46 |
| 11.5        | Warrant Agent not Required to Give Security                | 46 |
| 11.6        | Protection of Warrant Agent                                | 46 |
| 11.7        | Replacement of Warrant Agent; Successor by Merger          | 47 |
| 11.8        | Conflict of Interest                                       | 48 |
| 11.9        | Warrant Agent Not to be Appointed Receiver                 | 48 |
| 11.10       | Payments by Warrant Agent                                  | 48 |
| 11.11       | Deposit of Securities                                      | 48 |
| 11.12       | Act, Error, Omission etc.                                  | 48 |
| 11.13       | Indemnification                                            | 49 |
| 11.14       | Notice                                                     | 49 |
| 11.15       | Reliance by the Warrant Agent                              | 49 |
| 11.16       | Privacy                                                    | 50 |
| 11.17       | Anti-Money Laundering                                      | 50 |
| 11.18       | Force Majeure                                              | 50 |
| ARTICLE XI  | I ACCEPTANCE OF TRUSTS BY WARRANT AGENT                    | 51 |
| 12.1        | Appointment and Acceptance of Functions                    | 51 |
| ARTICLE XI  | II GENERAL                                                 | 51 |
| 13.1        | Notice to the Company and the Warrant Agent                | 51 |
| 13.2        | Time of the Essence                                        | 52 |
|             |                                                            |    |

| 13.3            | Counterparts and Formal Date                                                                        | 52 |
|-----------------|-----------------------------------------------------------------------------------------------------|----|
| 13.4            | Discretion of Directors                                                                             | 52 |
| 13.5            | Satisfaction and Discharge of Indenture                                                             | 53 |
| 13.6            | Provisions of Indenture and Warrant Certificates for the Sole Benefit of Parties and Warrantholders | 53 |
| 13.7            | Common Shares or Warrants Owned by the Company or its Subsidiaries Certificates to be Provided      | 53 |
| Schedule "A" Fo | chedule "A" Form of Warrant Certificate                                                             |    |
| Schedule "B" Fo | orm of Declaration For Removal of U.S. Legend                                                       | 1  |
|                 |                                                                                                     |    |

# THIS WARRANT INDENTURE dated as of the 29<sup>th</sup> day of June, 2017.

## **BETWEEN:**

TITAN MEDICAL INC., a corporation existing under the laws of the Province of Ontario

(hereinafter called the "Company")

- and -

## COMPUTERSHARE TRUST COMPANY OF CANADA, a trust company licensed to carry on business in all Provinces in Canada

(hereinafter called the "Warrant Agent")

WHEREAS the Company proposes to issue and sell up to 100,000,000 Warrants (as hereinafter defined) pursuant to the Prospectus (as hereinafter defined) and this Indenture;

AND WHEREAS pursuant to this Indenture, each Warrant shall entitle the registered holder thereof to purchase one Common Share (as hereinafter defined) (subject to adjustment as herein provided) at the price and upon the terms and conditions herein set forth;

AND WHEREAS for such purpose the Company deems it necessary to create and issue Warrants constituted and issued in the manner hereinafter appearing and the Warrants shall be represented solely by Warrant Certificates (as hereinafter defined) issued under this Indenture;

AND WHEREAS all things necessary have been done and performed to make the Warrants and the Warrant Certificates (when certified by the Warrant Agent and issued as provided for in this Indenture) legal, valid and binding upon the Company with the benefits of and subject to the terms of this Indenture;

AND WHEREAS the representations and statements of fact contained in the above recitals are those of the Company and not of the Warrant Agent;

NOW THEREFORE THIS INDENTURE WITNESSES that for good and valuable consideration mutually given and received, the receipt and sufficiency of which is hereby acknowledged, it is hereby agreed and declared as follows:

# ARTICLE I INTERPRETATION

#### 1.1 Definitions

In this Indenture, unless there is something in the subject matter or context inconsistent therewith, the terms defined in this Section or elsewhere herein shall have the respective meanings specified in this Section or elsewhere herein:

(a) "Accredited Investor" means an investor meeting the criteria set forth in Rule 501(a)(1), (2), (3) or (7) of Regulation D;

- (b) "Affiliate" has the meaning ascribed thereto in the Securities Act (Ontario), as amended or replaced from time to time;
- (c) "Agent" means Bloom Burton Securities Inc.;
- (d) "Authenticated" means (a) with respect to the issuance of a Warrant Certificate, one which has been duly signed by the Corporation and authenticated by manual signature of an authorized officer of the Warrant Agent, (b) with respect to the issuance of an Uncertificated Warrant, one in respect of which the Warrant Agent has completed all Internal Procedures such that the particulars of such Uncertificated Warrant as required by Section 2.9 are entered in the register of Warrantholders, "Authenticate", "Authenticating" and "Authentication" have the appropriate correlative meanings;
- (e) "Business Day" means a day which is not Saturday or Sunday or a statutory holiday in the City of Toronto or a day on which the principal office of the Warrant Agent in the City of Toronto is closed;
- (f) "Beneficial Owner" means a person that has a beneficial interest in the Warrant that is represented by a Warrant Certificate or Uncertificated Warrant registered in the name of CDS or its nominee, the purposes of being held by or on behalf of CDS as custodians for CDS Participants;
- (g) "Capital Reorganization" has the meaning attributed thereto in subsection 5.1(d);
- (h) "CDS" or the "Depository" means CDS Clearing and Depository Services Inc. or its nominee;
- (i) "CDS Participant" means a broker, dealer, bank or other financial institution or other person for whom, from time to time, CDS effects book entries for the Warrants deposited with CDS;
- (j) "Closing Date" has the meaning ascribed to such term in the Prospectus;
- (k) "Common Shares" means the common shares in the capital of the Company as such shares exist at the close of business on the date hereof and, in the event that there shall occur a change in respect of or affecting the Common Shares referred to in Section 5.1 (whether or not such change shall result in an adjustment in the Exercise Price), the term "Common Shares" shall mean the shares, other securities or other property which a Warrantholder is entitled to purchase upon the exercise of Warrants resulting from such change;
- (1) "Common Share Reorganization" has the meaning attributed thereto in subsection 5.1(a);

(m) "Company" means Titan Medical Inc., a corporation existing under the laws of the Province of Ontario, and its lawful successors from time to time;

(n) "Company's Auditors" means the chartered accountant or firm of chartered accountants duly appointed as auditor or auditors of the Company from time to time;

- (o) "Confirmation" means a confirmation sent by CDS to the Warrant Agent in connection with the exercise of a Warrant by a Beneficial Owner through a CDS Participant;
- (p) "Counsel" means a barrister or solicitor (who may be an employee of the Company) or a firm of barristers and solicitors (who may be counsel to the Company), in both cases acceptable to the Warrant Agent, acting reasonably;
- (q) "**Court**" has the meaning attributed thereto in subsection 11.7(1);
- (r) "Current Market Price" at any date, means the volume weighted average price per share at which the Common Shares have traded:
  - (i) on the TSX;
  - (ii) if the Common Shares are not listed on the TSX, on any stock exchange upon which the Common Shares are listed as may be selected for this purpose by the directors, acting reasonably and in good faith; or
  - (iii) if the Common Shares are not listed on any stock exchange, on any over-the- counter market;

during the 20 consecutive trading days (on each of which at least 500 Common Shares are traded in board lots) ending the second trading day before such date and the weighted average price shall be determined by dividing the aggregate sale price of all Common Shares sold in board lots on the exchange or market, as the case may be, during such 20 consecutive trading days by the number of Common Shares sold, or if not traded on any recognized market or exchange, as determined by the directors of the Company acting reasonably;

- (s) "Date of Issue" for a particular Warrant means the date on which the Warrant is actually issued by or on behalf of the Company;
- (t) "Director" means a director of the Company for the time being, and, unless otherwise specified herein, reference to "action by the Directors" means action by the Directors of the Company as a board, or whenever duly empowered, action by any committee of such board;
- (u) "Dividend Paid in the Ordinary Course" means a dividend paid on the Common Shares in any fiscal year of the Company in cash, provided that the aggregate amount of such dividends does not in such fiscal year exceed 5% of the Exercise Price, and for such purpose the amount of any dividend paid in shares shall be the aggregate stated capital of such shares, and the amount of any dividend paid in other than cash or shares shall be the fair market value of such dividend as determined by a resolution passed by the Board of Directors of the Company, subject, if applicable, to the prior consent of any stock exchange or any other over-the-counter market on which the Common Shares are traded;

- (v) "Exercise Date" with respect to any Warrant means the date on which the Warrant Certificate representing such Warrant is surrendered for exercise in accordance with the provisions of Article IV;
- (w) "Exercise Period" means the period commencing on the time of issue on the Date of Issue and ending at the Time of Expiry;
- (x) "Exercise Price" means a price per Common Share of C\$0.20 unless such price shall have been adjusted in accordance with the provisions of Section 5.1, in which case it shall mean such adjusted price in effect at such time;
- (y) **"Extraordinary Resolution**" has the meaning attributed thereto in Section 9.11;
- (z) "Filing Jurisdiction" means any of British Columbia, Alberta and Ontario;
- (aa) "Internal Procedures" means in respect of the making of any one or more entries to, changes in or deletions of any one or more entries in the register at any time (including without limitation, original issuance or registration of transfer of ownership) the minimum number of the Warrant Agent's internal procedures customary at such time for the entry, change or deletion made to be complete under the operating procedures followed at the time by the Warrant Agent, it being understood that neither preparation and issuance shall constitute part of such procedures for any purpose of this definition;
- (bb) "Offering" has the meaning ascribed to such term in the Prospectus;
- (cc) "Offshore Transaction" means "offshore transaction" as that term is defined in Regulation S;
- (dd) "Person" means an individual, a corporation, a partnership, a syndicate, a trustee or any unincorporated organization and words importing persons are intended to have a similarly extended meaning;
- (ee) "Prospectus" means the final short form prospectus dated June 26, 2017;
- (ff) "Qualified Institutional Buyer" means a "qualified institutional buyer" within the meaning of Rule 144A under the U.S. Securities Act;
- (gg) "Regulation D" means Regulation D adopted by the SEC under the U.S. Securities Act;
- (hh) "Regulation S" means Regulation S adopted by the SEC under the U.S. Securities Act;
- (ii) "Rights Offering" has the meaning attributed thereto in subsection 5.1(b);
- (jj) "Rights Period" has the meaning attributed thereto in subsection 5.1(b);
- (kk) "SEC" means the United States Securities and Exchange Commission;
- (ll) "Securities" means the Common Shares and Warrants;

- (mm) "Securities Laws" means, collectively, the applicable securities laws of the Filing Jurisdiction, the regulations, rules, rulings and orders made thereunder, the applicable published policy statements issued by the applicable securities commissions thereunder, and the securities legislation and published policies of each Filing Jurisdiction;
- (nn) "Shareholder" means a holder of record of one or more Common Shares;
- (00) "Special Distribution" has the meaning attributed thereto in subsection 5.1(c);
- (pp) "Subsidiary of the Company" means a corporation of which voting securities carrying a majority of the votes attached to all voting securities are held, directly or indirectly other than by way of security only, by or for the benefit of the Company, the Company and one or more subsidiaries thereof, or one or more subsidiaries of the Company; and, as used in this definition, voting securities means securities of a class or series or classes or series carrying a voting right to elect directors under all circumstances provided that, for the purposes hereof, securities which only carry the right to vote conditionally on the happening of an event shall not be considered voting securities whether or not such event shall have happened nor shall any securities be deemed to cease to be voting securities solely by reason of a right to vote accruing to securities of another class or series or series or series or the happening of such event;
- (qq) "this Warrant Indenture", "this Indenture", "herein", "hereby", and similar expressions mean and refer to this Indenture and any indenture, deed or instrument supplemental or ancillary hereto; and the expressions "Article", "Section", and "subsection" followed by a number mean and refer to the specified Article, Section or subsection of this Indenture;
- (rr) "Time of Expiry" means 5:00 p.m. (Toronto time) on June 29, 2022 (being the date that is 60 months after the date of this Indenture);
- (ss) "TSX" means the Toronto Stock Exchange;
- (tt) "Uncertificated Warrant" means any Warrant which is not issued as part of a Warrant Certificate;
- (uu) "Unit" has the meaning ascribed to such term in the Prospectus;
- (vv) "United States" means the United States of America as that term is defined in Regulation S;
- (ww) "U.S. Exchange Act" means the United States Securities Exchange Act of 1934, as amended;
- (xx) "U.S. Person" means a "U.S. person" as that term is defined in Regulation S;
- (yy) "U.S. Purchaser" means an original purchaser of Units of which the Warrants comprise a part who was, at the time of purchase, either a Accredited Investor or Qualified Institutional Buyer and (a) a U.S. Person, (b) any person purchasing such Units on behalf of, or for the account or benefit of, any U.S. Person or any person in the United States, (c) any person who receives or received an offer to acquire such Units while in the United States, and (d) any person who was in the United States at the time such person's buy order was made or the subscription agreement pursuant to which such Units were acquired was executed or delivered;

- (zz) "U.S. Securities Act" means the United States Securities Act of 1933, as amended;
- (aaa) "U.S. Warrantholder" means any Warrantholder that (a) is a U.S. Person, (b) is in the United States, (c) received an offer to acquire Warrants while in the United States, (d) was in the United States at the time such Warrantholder's buy order was made or such Warrantholder executed or delivered its purchase order for the Warrants, or (e) acquired Warrants in the United States or for the account or benefit of any U.S. Person or Person in the United States;
- (bbb) "Warrant" means each common share purchase warrant of the Company issued or to be issued hereunder entitling the holder thereof to purchase one Common Share for each Warrant upon payment of the Exercise Price; provided that in each case the number and/or class of shares or securities receivable on the exercise of the Warrant may be subject to increase or decrease or change in accordance with the terms and provisions hereof;
- (ccc) "Warrant Agent" means Computershare Trust Company of Canada, or its successors hereunder;
- (ddd) "Warrant Certificate" means a certificate representing one or more Warrants substantially in the form set forth in Schedule "A" hereto or such other form as may be approved by the Company, the Agent and the Warrant Agent. To the extent that the Warrants are in the non-certificated issuer system, then this term shall mean the appropriate evidence of such warrants pursuant to the non-certificated issuer system;
- (eee) "Warrantholders" or "holders" without reference to Common Shares means the Persons whose names are entered for the time being on the register maintained pursuant to Section 3.2(1);
- (fff) "Warrantholders' Request" means an instrument signed in one or more counterparts by Warrantholders entitled to purchase, in the aggregate, not less than 10% of the aggregate number of Warrants then unexercised and outstanding, which requests the Warrant Agent to take some action or proceeding specified therein; and
- (ggg) "written order of the Company", "written request of the Company", "written consent of the Company" and "certificate of the Company" and any other document required to be signed by the Company, means, respectively, a written order, request, consent, certificate or other document signed in the name of the Company by any officer or director and may consist of one or more instruments so executed.

#### 1.2 Number and Gender

Unless the context otherwise requires, words importing the singular include the plural and vice versa and words importing gender include all genders.

#### 1.3 Interpretation Not Affected by Headings, Etc.

The division of this Indenture into Articles, Sections and subsections, the provision of a table of contents and the insertion of headings are for convenience of reference only and shall not affect the construction or interpretation of this Indenture or the Warrant Certificates.

#### 1.4 Day Not a Business Day

In the event that any day on or before which any action is required to be taken hereunder is not a Business Day, then such action shall be required to be taken on or before the requisite time on the next succeeding day that is a Business Day.

## 1.5 Governing Law

This Indenture and the Warrant Certificates shall be governed by and construed in accordance with the laws of the Province of Ontario and the laws of Canada applicable therein and shall be treated in all respects as Ontario contracts.

#### 1.6 Currency

Except as otherwise specified herein, all dollar amounts herein are expressed in lawful money of Canada.

## 1.7 Meaning of "Outstanding"

Every Warrant represented by a Warrant Certificate countersigned and delivered by the Warrant Agent hereunder shall be deemed to be outstanding until it shall be cancelled or exercised pursuant to Article IV, provided that where a new Warrant Certificate has been issued pursuant to Section 2.3 hereof to replace one which has been mutilated, lost, destroyed or stolen, the Warrants represented by only one of such Warrant Certificates shall be counted for the purpose of determining the aggregate number of Warrants outstanding.

#### 1.8 Severability

In the event that any provision hereof shall be determined to be invalid, illegal or unenforceable in any respect, the validity, legality and enforceability of the remainder of such provision and any other provision hereof shall not be affected or impaired thereby.

#### 1.9 Statutory References

In this Indenture, unless something in the subject matter or context is inconsistent therewith or unless otherwise herein provided, a reference to any statute is to that statute as now enacted or as the same may from time to time be amended, re-enacted or replaced and includes any regulation made thereunder.

# ARTICLE II ISSUE OF WARRANTS

# 2.1 Issue of Warrants

Up to 100,000 Warrants are hereby created and authorized to be issued and certificates evidencing such Warrants as have been issued shall be executed by the Company, certified by or on behalf of the Warrant Agent upon the written order of the Company and delivered in accordance with this Article.

#### 2.2 Form and Terms of Warrants

- (1) Subject to subsection 2.2(2), each Warrant authorized to be issued hereunder shall entitle the holder thereof to purchase upon due exercise and upon due execution and endorsement of the subscription form on the Warrant Certificate or other instrument of subscription in such form as the Warrant Agent and/or the Company may from time to time prescribe and upon payment of the Exercise Price in effect on the Exercise Date, one Common Share at any time during the Exercise Period, in accordance with the provisions of this Indenture.
- (2) The number of Common Shares which may be purchased pursuant to the Warrants and the Exercise Price shall be adjusted in the events and in the manner specified in Section 5.1.
- (3) The Warrants may be issued in both certificated and uncertificated form, except that all Warrants originally issued to a U.S. Purchaser will be issued in certificated form only. Warrant Certificates for the Warrants shall be substantially in the form attached as Schedule "A" hereto, with such additions, variations and changes as may be required or permitted by the terms of this Indenture, and which may from time to time be agreed upon by the Warrant Agent and the Company, and shall bear such legends and such distinguishing letters and numbers as the Company may, with the approval of the Warrant Agent, prescribe. The Warrant Certificates shall be dated as of the date hereof or on such other Closing Date upon which Warrants shall be issued.
- (4) Subject to subsection 2.2(5), Warrant Certificates shall be issuable in any denomination.
- (5) If a Warrantholder is entitled to a fraction of a Warrant the number of Warrants issued to that Warrantholder shall be rounded down to the nearest whole Warrant.
- (6) The Warrant Certificates may be engraved, lithographed or printed (the expression "printed" including for purposes hereof both original typewritten material as well as mimeographed, mechanically, photographically, photostatically or electronically reproduced, typewritten or other written material), or partly in one form and partly in another, as the Company, with the approval of the Warrant Agent, may determine. No change in the form of the Warrant Certificate shall be required by reason of any adjustment made pursuant to Section 5.1 in the number and/or class of securities or type of securities that may be acquired pursuant to the Warrants.

#### 2.3 Issue in Substitution for Lost Warrant Certificates

- (1) In the event that any Warrant Certificates issued and certified under this Indenture shall be mutilated, lost, destroyed or stolen, the Company, subject to applicable law, shall issue and thereupon the Warrant Agent shall certify and deliver, a new certificate of like tenor, and bearing the same legends, as the one mutilated, lost, destroyed or stolen in exchange for and in place of and upon cancellation of such mutilated certificate, or in lieu of and in substitution for such lost, destroyed or stolen certificate, and the substituted certificate shall be in a form approved by the Warrant Agent and shall be entitled to the benefits hereof and shall rank equally in accordance with its terms with all other Warrant Certificates issued or to be issued hereunder.
- (2) The applicant for the issue of a new certificate pursuant to this Section 2.3 shall bear the reasonable cost of the issue thereof and in case of loss, destruction or theft shall, as a condition precedent to the issue thereof, furnish to the Company and to the Warrant Agent such evidence of ownership and of the loss, destruction or theft of the certificate so lost, destroyed or stolen as shall be satisfactory to the Company and to the Warrant Agent in their sole discretion, acting reasonably, and such applicant shall also be required to furnish an indemnity and surety bond in amount and form satisfactory to the Company and the Warrant Agent, each acting reasonably, to save each of them harmless, and shall pay the reasonable expenses, charges and any taxes applicable thereto to the Company and the Warrant Agent in connection therewith.

#### 2.4 Non-Certificated Deposit

- (1) Subject to the provisions hereof, at the Company's option, Warrants, other than those issued pursuant to a U.S. Purchaser (which will be evidenced in certificated form only bearing the legends set forth in Section 2.9), will be issued and registered in the name of CDS or its nominee and:
  - (A) may be directly deposited by the Warrant Agent to CDS; and
  - (B) shall be identified by the CUSIP/ISIN 88830X272 / CA88830X2721
- (2) If the Company issues Warrants in a non-certificated format, Beneficial Owners of such Warrants registered and deposited with CDS shall not receive Warrant Certificates in definitive form and shall not be considered owners or holders thereof under this Indenture or any supplemental agreement. Beneficial interests in Warrants registered and deposited with CDS will be represented only through the non-certificated inventory system administered by CDS. Transfers of Warrants registered and deposited with CDS between CDS Participants shall occur in accordance with the rules and procedures of CDS. Neither the Company nor the Warrant Agent shall have any responsibility or liability for any aspects of the records relating to or payments made by CDS or its nominee, on account of the beneficial interests in Warrants registered and deposited with CDS. Nothing herein shall prevent the Beneficial Owners of Warrants registered and deposited with CDS. Nothing herein shall prevent the Beneficial Owners of Warrants registered and deposited with CDS. Nothing herein shall prevent the Beneficial Owners of Warrants registered and deposited with CDS from voting such Warrants using duly executed proxies.

- (3) All references herein to actions by, notices given or payments made to Warrantholders shall, where Warrants are held through CDS, refer to actions taken by, or notices given or payments made to, CDS upon instruction from the CDS Participants in accordance with its rules and procedures. For the purposes of any provision hereof requiring or permitting actions with the consent of or at the direction of Warrantholders evidencing a specified percentage of the aggregate Warrants outstanding, such direction or consent may be given by Beneficial Owners acting through CDS and the CDS Participants owning Warrants evidencing the requisite percentage of the Warrants. The rights of a Beneficial Owner whose Warrants are held through CDS shall be exercised only through CDS and the CDS Participants and shall be limited to those established by law and agreements between such Beneficial Owners and CDS and the CDS Participants upon instructions from the CDS Participants. Each of the Warrant Agent and the Company may deal with CDS for all purposes (including the making of payments) as the authorized representative of the respective Warrants and such dealing with CDS shall constitute satisfaction or performance, as applicable, of their respective obligations hereunder.
- (4) For so long as Warrants are held through CDS, if any notice or other communication is required to be given to Warrantholders, the Warrant Agent will give such notices and communications to CDS.
- (5) If CDS resigns or is removed from its responsibility as Depository and the Warrant Agent is unable or does not wish to locate a qualified successor, CDS shall provide the Warrant Agent with instructions for registration of Warrants in the names and in the amounts specified by CDS and the Company shall issue and the Warrant Agent shall certify and deliver the aggregate number of Warrants then outstanding in the form of definitive Warrant Certificates representing such Warrants.
- (6) Every Warrant Authenticated upon registration of transfer of an Uncertificated Warrant, or in exchange for or in lieu of an Uncertificated Warrant or any portion thereof, whether pursuant to this Section 2.4 or otherwise, shall be Authenticated in the form of, and shall be, an Uncertificated Warrant, unless such Warrant is registered in the name of a person other than the Depository for such Uncertificated Warrant or a nominee thereof.
- (7) The rights of Beneficial Owners who hold securities entitlements in respect of the Warrants through the non-certificated inventory system administered by CDS shall be limited to those established by applicable law and agreements between the Depository and the CDS Participants and between such CDS Participants and the Beneficial Owners who hold securities entitlements in respect of the Warrants through the non-certificated inventory system administered by CDS, and such rights must be exercised through a CDS Participant in accordance with the rules and procedures of the Depository.

- (8) Notwithstanding anything herein to the contrary, neither the Company nor the Warrant Agent nor any agent thereof shall have any responsibility or liability for:
  - (A) the electronic records maintained by the Depository relating to any ownership interests or any other interests in the Warrants or the depository system maintained by the Depository, or payments made on account of any ownership interest or any other interest of any person in any Warrants represented by an electronic position in the non-certificated inventory system administered by CDS (other than the Depository or its nominee);
  - (B) for maintaining, supervising or reviewing any records of the Depository or any CDS Participant relating to any such interest; or
  - (C) any advice or representation made or given by the Depository or those contained herein that relate to the rules and regulations of the Depository or any action to be taken by the Depository on its own direction or at the direction of any CDS Participant.
- (9) The Company may terminate the application of this Section 2.4 in its sole discretion in which case all Warrants shall be evidenced by Warrant Certificates registered in the name of a person other than the Depository.
- (10) Notwithstanding the foregoing, upon request of the Beneficial Owner, through the Depository, the Warrant Agent shall issue a Warrant Certificate in respect of the interest of such Beneficial Owner, in which case the Uncertificated Warrant representing such Warrants shall be reduced accordingly and such Warrants shall be duly registered as directed by the Depository.

#### 2.5 Warrantholder not a Shareholder

Nothing in this Indenture or in the holding of a Warrant evidenced by a Warrant Certificate or otherwise, shall be construed as conferring upon a Warrantholder any right or interest whatsoever as a Shareholder of the Company, including, but not limited to, the right to vote at, to receive notice of, or to attend, meetings of shareholders or any other proceedings of the Company, nor entitle the holder to any right or interest in respect thereof except as herein and in the Warrants expressly provided.

# 2.6 Warrants to Rank Pari Passu

All Warrants shall rank pari passu, whatever may be the respective Dates of Issue of the same.

#### 2.7 Signing of Warrant Certificates

The Warrant Certificates shall be signed by any one of the directors or officers of the Company and may, but need not, be under the corporate seal of the Company or a reproduction thereof. The signature of any such director or officer may be mechanically reproduced and Warrant Certificates bearing such mechanically reproduced signatures shall be binding upon the Company as if they had been manually signed by such director or officer. Notwithstanding that the person whose manual or mechanically reproduced signature appears on any Warrant Certificate as a director or officer may no longer holds office at the date of issue of the Warrant Certificate or at the date of certification or delivery thereof, any Warrant Certificate signed as aforesaid shall, subject to Section 2.7, be valid and binding upon the Company and the registered holder thereof will be entitled to the benefits of this Indenture.

### 2.8 Certification by the Warrant Agent

- (1) No Warrant Certificate shall be issued or, if issued, shall be valid for any purpose or entitle the registered holder to the benefit hereof or thereof until it has been certified by manual signature by or on behalf of the Warrant Agent, and such certification by the Warrant Agent upon any Warrant Certificate shall be conclusive evidence as against the Company that the Warrant Certificate so certified has been duly issued hereunder and that the holder is entitled to the benefit hereof.
- (2) The certification of the Warrant Agent on Warrant Certificates issued hereunder shall not be construed as a representation or warranty by the Warrant Agent as to the validity of this Indenture or the Warrant Certificates (except the due certification thereof) and the Warrant Agent shall in no respect be liable or answerable for the use made of the Warrant Certificates or any of them or of the consideration therefor nor for any breach by the Company of its covenants herein, except as otherwise specified therein.

# 2.9 Legended Warrant Certificates

- (1) The Warrant Agent understands and acknowledges that the Warrants and Common Shares issuable upon exercise of the Warrants have not been, and will not be, registered under the U.S. Securities Act or the securities laws of any state of the United States.
- (2) Each Warrant Certificate originally issued to a U.S. Purchaser, and all certificates representing Common Shares issued upon exercise of such Warrants, as well as all certificates issued in exchange thereof or in substitution thereof, shall, until such time as the same is no longer required under applicable requirements of the U.S. Securities Act and applicable state securities laws, bear a legend substantially to the following effect:

THE SECURITIES REPRESENTED HEREBY [For Warrants Include: AND THE SECURITIES ISSUABLE UPON EXERCISE HEREOF] HAVE NOT BEEN AND WILL NOT BE REGISTERED UNDER THE UNITED STATES SECURITIES ACT OF 1933, AS AMENDED (THE "U.S. SECURITIES ACT") OR U.S. STATE SECURITIES LAWS. THESE SECURITIES MAY BE OFFERED, SOLD, PLEDGED OR OTHERWISE TRANSFERRED, DIRECTLY OR INDIRECTLY, ONLY (A) TO TITAN MEDICAL INC. (THE "CORPORATION"), (B) OUTSIDE THE UNITED STATES IN COMPLIANCE WITH RULE 904 OF REGULATION S UNDER THE U.S. SECURITIES ACT AND IN COMPLIANCE WITH APPLICABLE LOCAL LAWS AND REGULATIONS, (C) IN COMPLIANCE WITH THE EXEMPTION FROM THE REGISTRATION REQUIREMENTS UNDER THE U.S. SECURITIES ACT PROVIDED BY (I) RULE 144 OR (II) RULE 144A THEREUNDER, IF AVAILABLE, AND IN EACH CASE IN ACCORDANCE WITH APPLICABLE U.S. STATE SECURITIES LAWS, (D) IN ANOTHER TRANSACTION THAT DOES NOT REQUIRE REGISTRATION UNDER THE U.S. SECURITIES ACT OR ANY APPLICABLE STATE SECURITIES LAWS, OR (E) PURSUANT TO AN EFFECTIVE REGISTRATION STATEMENT UNDER THE U.S. SECURITIES ACT, PROVIDED THAT, IN THE CASE OF TRANSFERS PURSUANT TO (C), (D) or (E) ABOVE, THE HOLDER HAS, PRIOR TO SUCH TRANSFER, FURNISHED TO THE CORPORATION AN OPINION OF COUNSEL OR OTHER EVIDENCE OF EXEMPTION, IN EITHER CASE REASONABLY SATISFACTORY TO THE CORPORATION THAT THE TRANSACTION DOES NOT REQUIRE REGISTRATION UNDER THE U.S. SECURITIES ACT OR ANY APPLICABLE STATE SECURITIES LAWS. DELIVERY OF THIS CERTIFICATE MAY NOT CONSTITUTE "GOOD DELIVERY" IN SETTLEMENT OF TRANSACTIONS ON STOCK EXCHANGES IN CANADA.

[For Warrants Only: THIS WARRANT AND THE SECURITIES ISSUABLE UPON EXERCISE HEREOF HAVE NOT BEEN REGISTERED UNDER THE UNITED STATES SECURITIES ACT OF 1933, AS AMENDED (THE "U.S. SECURITIES ACT"). THIS WARRANT MAY NOT BE EXERCISED BY OR ON BEHALF OF A U.S. PERSON OR PERSON IN THE UNITED STATES UNLESS THE SHARES ISSUABLE UPON EXERCISE OF THIS WARRANT HAVE BEEN REGISTERED UNDER THE U.S. SECURITIES ACT AND THE APPLICABLE SECURITIES LEGISLATION OF ANY SUCH STATE OR EXEMPTIONS FROM SUCH REGISTRATION REQUIREMENTS ARE AVAILABLE. "UNITED STATES" AND "U.S. PERSON" ARE AS DEFINED BY REGULATION S UNDER THE U.S. SECURITIES ACT.] provided that if, the Securities are being sold in an off-shore transaction and in compliance with the requirements of Rule 904 of Regulation S under the U.S. Securities Act and in compliance with Canadian local laws and regulations, the legend may be removed by providing a declaration to Computershare Trust Company of Canada as registrar and transfer agent for the Securities to the effect substantially in the form attached as Schedule B, subject to the Company's prior approval and which approval shall not be unreasonably withheld or delayed, together with such other evidence as the Company or the registrar and transfer agent for the Securities may require, which may include an opinion of counsel which the Company shall promptly procure upon the holder's request, to the effect that the transfer may be completed and the legend removed without registration under the U.S. Securities Act and any applicable state securities laws and the Company shall instruct Computershare Trust Company of Canada to remove such legend within three business days of receipt of such declaration; and provided further, that, if any of the Securities are being sold pursuant to clause (C) in the legend above, under the U.S. Securities Act, the legend may be removed by delivery to Computershare Trust Company of Canada of an opinion of counsel of recognized standing in form and substance satisfactory to the Company, to the effect that the legend is no longer required under applicable requirements of the U.S. Securities Act or state securities laws

(3) If a Warrant Certificate is tendered for transfer and bears the legend set forth in subsection 2.9(2) hereof and the holder thereof has not obtained the prior written consent of the Company, the Warrant Agent or the registrar and transfer agent, as the case may be, shall not register such transfer unless the holder complies with the requirements of the said subsection 2.9(2) hereof.

#### 2.10 Copy of Indenture

The Company shall, on the written request of the Warrantholder and without charge, provide the Warrantholder with a copy of this Indenture. A copy of this Indenture will also be available on the Company's profile on www.sedar.com.

# ARTICLE III EXCHANGE AND OWNERSHIP OF WARRANTS; NOTICES

# 3.1 Exchange of Warrant Certificates

(1) Warrant Certificates entitling Warrantholders to purchase any specified number of Common Shares may, upon compliance with the reasonable requirements of the Warrant Agent, be exchanged for one or more Warrant Certificates in any other authorized denomination bearing the same legends representing in the aggregate an equal number of Warrants as the number of Warrants represented by the Warrant Certificates being exchanged. The Company shall sign all Warrant Certificates necessary to carry out exchanges as aforesaid and such Warrant Certificates shall be certified by or on behalf of the Warrant Agent.

- (2) Warrant Certificates may be exchanged only at the principal transfer office of the Warrant Agent in the City of Toronto, Ontario or at any other place that is designated by the Company with the approval of the Warrant Agent. Any Warrant Certificates tendered for exchange shall be surrendered to the Warrant Agent or its agents and cancelled.
- (3) Except as otherwise herein provided, any Warrant Agent may charge the holder requesting an exchange a reasonable sum for each new Warrant Certificate issued in exchange for Warrant Certificate(s); and payment of such charges and reimbursement of the Warrant Agent or the Company for any and all stamp taxes or governmental or other charges required to be paid shall be made by such holder as a condition precedent to such exchange.

#### 3.2 Registration of Warrants

- (1) The Company shall, at all times while any Warrants are outstanding, cause the Warrant Agent and its agents to maintain a register in which will be entered in alphabetical order the names, latest known addresses of the Warrantholders and particulars of the Warrants held by them, and a register of transfers in which shall be entered the particulars of all transfers of Warrants, such registers to be kept by and at the principal transfer office of the Warrant Agent in the City of Toronto.
- (2) At the office of the Warrant Agent during normal business hours, the holder of a Warrant may have such Warrant transferred in accordance with such reasonable requirements as the Warrant Agent may prescribe. The costs of any such transfer registration shall be borne by the transferee or presenter.
- (3) The registers referred to in this Section 3.2 shall at all reasonable times be open for inspection by the Company and by any Warrantholder. The Warrant Agent, when requested in writing so to do by the Company, shall furnish the Company with a list of names and addresses of the Warrantholders showing the number of Warrants held by each Warrantholder.
- (4) Once an Uncertificated Warrant has been Authenticated, the information set forth in the register with respect thereto at the time of Authentication may be altered, modified, amended, supplemented or otherwise changed only to reflect exercise or proper instructions to the Warrant Agent from the Warrantholder as provided herein, except that the Warrant Agent may act unilaterally to make purely administrative changes internal to the Warrant Agent and changes to correct errors. Each person who becomes a Warrantholder of an Uncertificated Warrant, by his, her or its acquisition thereof shall be deemed to have irrevocably (i) consented to the foregoing authority of the Warrant Agent to make such minor error corrections and (ii) agreed to pay to the Warrant Agent, promptly upon written demand, the full amount of all loss and expense (including without limitation reasonable legal fees of the Company and the Warrant Agent plus interest, at an appropriate then prevailing rate of interest to the Warrant Agent, sustained by the Company or the Warrant Agent as a proximate result of such error if but only if and only to the extent that such present or former Warrantholder realized any benefit as a result of such error and could reasonably have prevented, forestalled or minimized such loss and expense by prompt reporting of the error or avoidance of accepting benefits thereof whether or not such error is or should have been timely detected and corrected by the Warrant Agent; provided, that no person who is a bona fide purchaser shall have any such obligation to the Company or to the Warrant Agent.

### 3.3 Transfer of Warrants

- (1) No transfer of a Warrant will be valid unless entered on the register of transfers referred to in subsection 3.2(1), upon surrender to the Warrant Agent of the Warrant Certificate evidencing such Warrant, and a duly completed and executed Transfer Form as attached to the Warrant Certificate executed by the registered holder or his executors, administrators or other legal representatives or his or their attorney duly appointed by an instrument in writing in form and execution satisfactory to the Warrant Agent, and, upon compliance with the conditions herein and such reasonable requirements as the Warrant Agent may prescribe, including compliance with all applicable securities legislation, such transfer will be recorded on the register of transfers by the Warrant Agent. Notwithstanding the foregoing, if the Warrants are Uncertificated Warrants, the provisions of Section 3.2(4) shall apply.
- (2) The transferee of any Warrant will, after surrender to the Warrant Agent of the Warrant Certificate evidencing such Warrant as required by subsection 3.3(1) and upon compliance with all other conditions in respect thereof required by this Indenture or by applicable law, be entitled to be entered on the register of holders referred to in subsection 3.2(1) as the owner of such Warrant free from all equities or rights of set-off or counterclaim between the Company and the transferor or any previous holder of such Warrant, except in respect of equities of which the Company is required to take notice by statute or by order of a court of competent jurisdiction.
- (3) The Company will be entitled, and may direct the Warrant Agent, to refuse to recognize any transfer, or enter the name of any transferee, of any Warrant on the registers referred to in subsection 3.2(1), if such transfer would constitute a violation of the securities laws of any applicable jurisdiction or the rules, regulations or policies of any regulatory authority having jurisdiction. The Warrant Agent is entitled to assume compliance with all applicable securities legislation unless otherwise notified in writing by the Company. The Warrant Agent shall have no obligation to ensure or verify compliance with any applicable laws or regulatory requirements on the issue, exercise or transfer of any Warrants or any Common Shares issuable upon the exercise thereof provided such issue, exercise or transfer is effected in accordance with the terms of this Warrant Indenture.

- (4) If a Warrant Certificate tendered for transfer bears the legend set forth in subsection 2.9(2), the Warrant Agent shall not register such transfer unless the transferor has provided the Warrant Agent with the Warrant Certificate and complies with the requirements of the said subsection 2.9(2).
- (5) If the Warrant Certificate tendered for transfer does not bear the legend set forth in subsection 2.9(2), the Warrant Agent shall not register such transfer unless the transferor has provided the Warrant Agent with the Warrant Certificate and a completed and executed transfer form in the form included in the Warrant Certificate. Notwithstanding the foregoing, the Warrant Agent shall not register such transfer if the Warrant Agent has reason to believe that the transferee is a person in the United States or a U.S. Person or is acquiring the Warrants evidenced thereby for the account or benefit of a person in the United States or a U.S. Person.

#### 3.4 Ownership of Certificates

- (1) Except in connection with the registration of Uncertificated Warrants, the Company and the Warrant Agent and their respective agents may deem and treat the holder of any Warrant Certificate as the absolute holder and owner of the Warrants evidenced thereby for all purposes, and the Company and the Warrant Agent shall not be affected by any notice or knowledge to the contrary and, without limiting the foregoing, shall not be bound by notice of any trust or be required to see to the execution thereof.
- (2) Subject to the provisions of this Indenture and applicable law, a Warrantholder shall be entitled to the rights evidenced by such Warrant Certificate free from all equities or rights of set-off or counterclaim between the Company and the original or any intermediate holder thereof and all persons may act accordingly and the receipt by any such holder of the Common Shares obtainable pursuant thereto shall be a good discharge to the Company and the Warrant Agent for the same and neither the Company nor the Warrant Agent shall be bound to inquire into the title of any such holder, except where the Company or the Warrant Agent is required to take notice by statute or by order of a court of competent jurisdiction.

#### 3.5 Evidence of Ownership

(1) Upon receipt of a certificate of any bank, trust company or other depositary satisfactory to the Warrant Agent stating that the Warrants specified therein have been deposited by a named person with such bank, trust company or other depositary and will remain so deposited until the expiry of the period specified therein, the Company and the Warrant Agent may treat the person so named as the owner, and such certificate as sufficient evidence of the ownership by such person of such Warrants during such period, for the purpose of any requisition, direction, consent, instrument or other document to be made, signed or given by the holder of the Warrants so deposited. (2) The Company and the Warrant Agent may accept as sufficient evidence of the fact and date of the signing of any requisition, direction, consent, instrument or other document by any person, the signature, as witness, of any officer of any trust company, bank or depositary satisfactory to the Warrant Agent, the certificate of any notary public or other officer authorized to take acknowledgements of deeds to be recorded at the place where such certificate is made, that the person signing acknowledged to him the execution thereof, or a statutory declaration of a witness of such execution.

#### 3.6 Notices

Unless herein otherwise expressly provided, any notice to be given hereunder to the Warrantholders shall be deemed to be validly given if such notice is given by personal delivery or first class mail to the attention of the holder at the registered address of the holder recorded in the registers maintained by the Warrant Agent; provided that in the case of notice convening a meeting of the Warrantholders, the Company may require such publication of such notice, in such city or cities, as it may deem necessary for the reasonable protection of the Warrant holders or to comply with any applicable requirement of law or any stock exchange. Any notice so given shall be deemed to have been given on the day of delivery or three (3) Business Days after mailing. In determining under any provision hereof the date when notice of any meeting or other event must be given, the date of giving notice shall be included and the date of the meeting or other event shall be excluded. For greater certainty, all costs in connection with the giving of notices contemplated by this Section 3.6 shall be borne by the Company.

## ARTICLE IV EXERCISE OF WARRANTS

#### 4.1 Method of Exercise of Warrants

(1) Subject to Section 4.8, upon and subject to the provisions hereof, the registered holder of any Warrant may exercise the rights thereby conferred on him to purchase all or any part of the Common Shares to which such Warrant entitles the holder, by surrendering the Warrant Certificate representing such Warrants to the Warrant Agent during the Exercise Period at its principal transfer office in Toronto, Ontario (or at any other place or places that may be designated by the Company from time to time with the approval of the Warrant Agent), with a duly completed and executed subscription form of the registered holder or his executors, administrators or other legal representative or his attorney duly appointed by an instrument in writing in the form and manner satisfactory to the Warrant Agent, substantially in the form attached to the Warrant Certificate specifying the number of Common Shares subscribed for together with a certified cheque, money order or bank draft in lawful money of Canada payable to or to the order of the Company at par in Toronto, Ontario in an amount equal to the Exercise Price applicable at the time of such surrender in respect of each Common Share subscribed for. A Warrant Certificate with the duly completed and executed subscription form together with the payment of the Exercise Price shall be deemed to be surrendered only upon personal delivery thereof to or, if sent by mail or other means of transmission, upon actual receipt thereof by the Warrant Agent.

- (2)No Warrant represented by an Uncertificated Warrant may be exercised unless, prior to such exercise, the Warrantholder of such Warrant shall have taken all other action necessary to exercise such Warrant in accordance with this Indenture and the Internal Procedures. Notwithstanding anything to the contrary contained herein and subject to the Internal Procedures in force from time to time, a Beneficial Owner whose Warrants are represented by an Uncertificated Warrant who desires to exercise his or her Warrants must do so by causing a CDS Participant to deliver to CDS, on behalf of the Beneficial Owner, a written notice of the Beneficial Owner's intention to exercise Warrants in a manner acceptable to CDS. Forthwith upon receipt by CDS of such notice, as well as payment in an amount equal to the product obtained by multiplying the Exercise Price by the number of Common Shares subscribed for, CDS shall deliver to the Warrant Agent a Confirmation. An electronic exercise of Uncertificated Warrants initiated by the CDS Participant shall constitute a representation to both the Company and the Warrant Agent that the beneficial owner at the time of exercise of such Warrants (a) is not in the United States; (b) is not a U.S. Person and is not exercising such Warrants on behalf of a U.S. Person or a person in the United States; (c) did not acquire the Warrants in the United States or on behalf of, or for the account or benefit of a U.S. Person or a person in the United States; (d) did not receive an offer to exercise the Warrant in the United States; (e) did not execute or deliver the notice of the owner's intention to exercise such Warrants in the United States; and (f) has, in all other respects, complied with the terms of Regulation S under the U.S. Securities Act in connection with such exercise. If the CDS Participant is not able to make or deliver the foregoing representations by initiating the electronic exercise of the Uncertificated Warrants, then such Uncertificated Warrants shall be withdrawn from the book based registration system, by the CDS Participant and an individually registered Warrant Certificate shall be issued by the Warrant Agent to such Beneficial Owner or CDS Participant and the exercise procedures set forth in Section 4.1(1) shall be followed.
- (3) Payment by a Beneficial Owner representing the Exercise Price must be provided to the appropriate office of the CDS Participant in a manner acceptable to it. A notice in form acceptable to the CDS Participant and payment from such Beneficial Owner should be provided to the CDS Participant sufficiently in advance so as to permit the CDS Participant to deliver notice and payment to CDS and for CDS in turn to deliver notice and payment to the Warrant Agent prior to Expiry Time. CDS will initiate the exercise by way of the Confirmation and forward the Exercise Price electronically to the Warrant Agent and the Warrant Agent will execute the exercise by issuing to CDS through the non-certified inventory system administered by CDS the Common Shares to which the exercising Beneficial Owner is entitled pursuant to the exercise. Any expense associated with the exercise process will be for the account of the Beneficial Owner exercising the Warrants and/or the CDS Participant exercising the Warrants on its behalf.

- (4) Notwithstanding any provisions of this Warrant Indenture, a beneficial owner may exercise his Warrants or take any actions under this Warrant Indenture in accordance with the rules and procedures of CDS.
- (5) Any subscription referred to in this Section 4.1 shall be signed by the Warrantholder, shall specify the person(s) in whose name such Common Shares are to be issued, the address(es) of such person(s) and the number of Common Shares to be issued to each person, if more than one is so specified. If any of the Common Shares subscribed for are to be issued to (a) person(s) other than the Warrantholder, the signatures set out in the subscription referred to in subsection 4.1(1) shall be guaranteed by a major Canadian chartered bank, or by a medallion signature guaranteed from a member of a recognized Signature Medallion Guarantee Program and the Warrantholder shall pay to the Company all applicable transfer or similar taxes and the Company shall not be required to issue or deliver certificates evidencing Common Shares unless or until such Warrantholder shall have paid to the Company the amount of such tax or shall have established to the satisfaction of the Company that such tax has been paid or that no tax is due.
- (6) If, at the time of exercise of the Warrants, in accordance with the provisions of subsection 3.1(1), there are any trading restrictions on the Common Shares pursuant to applicable securities legislation or stock exchange requirements, the Company shall, on the advice of counsel, endorse any certificates representing the Common Shares to such effect. The Warrant Agent is entitled to assume compliance with all applicable securities legislation unless otherwise notified in writing by the Company.

# 4.2 Effect of Exercise of Warrants

- (1) Upon compliance by the Warrantholder with the provisions of Section 4.1, the Common Shares so subscribed for shall be deemed to have been issued and the Person or Persons to whom such Common Shares are to be issued shall be deemed to have become the holder or holders of record of such Common Shares on the Exercise Date unless the share registers maintained by the transfer agent for the Common Shares shall be closed on such date, in which case the Common Shares so subscribed for shall be deemed to have been issued, and such Person or Persons shall be deemed to have become the holder or holders of record of such Common Shares on the date on which such registers were reopened and such Common Shares shall be issued at the Exercise Price in effect on the Exercise Date. To the extent the opening of the registers remains within the control of the Warrant Agent, the Company and the Warrant Agent shall cause such registers to be open on Business Days.
- (2) Within three (3) Business Days following the due exercise of a Warrant pursuant to Section 4.1, the Warrant Agent shall deliver to the Company a notice setting forth the particulars of all Warrants exercised, and the persons in whose names the Common Shares are to be issued (as applicable) and the addresses of such holders of the Common Shares.

- (3) Subject to Section 4.1(3), within five (5) Business Days of the due exercise of a Warrant pursuant to Section 4.1, or within (10) Business Days of the due exercise of a Warrant if such exercise would result in a fraction of a Common Share, the Company shall cause its transfer agent to mail to the person in whose name the Common Shares so subscribed for are to be issued, as specified in the subscription completed on the Warrant Certificate, at the address specified in such subscription, a certificate or certificates for the Common Shares to which the Warrantholder is entitled and, if applicable, shall cause the Warrant Agent to mail a Warrant Certificate representing any Warrants not then exercised.
- (4) If at the time of exercise of the Warrants there remain trading restrictions on the Common Shares acquired upon such exercise pursuant to applicable securities legislation or policy of any applicable regulatory body, the Company may, upon the advice of Counsel, endorse any Common Share certificates to such effect. Furthermore, the Company shall, or its Counsel shall, notify the Warrant Agent in writing of any trading restrictions on the Common Shares acquired upon such exercise pursuant to applicable securities legislation or policy of any applicable regulatory body. Unless and until advised in writing by the Company or its Counsel that a specific legend and trading restrictions apply to the Common Shares, the Warrant Agent shall be entitled to assume that no specific legend is required and that there are no trading restrictions on the Common Shares.

## 4.3 Subscription for Less than Entitlement

The holder of any Warrant Certificate may subscribe for and purchase a whole number of Common Shares that is less than the number that the holder is entitled to purchase pursuant to the surrendered Warrant Certificate. In such event, the holder thereof shall be entitled to receive, without charge except as aforesaid, a new Warrant Certificate in respect of the balance of the Common Shares which such holder was entitled to purchase pursuant to the surrendered Warrant Certificate and which was not then purchased, such new Warrant Certificate to contain the same legend as provided in subsection 2.9(2), if applicable.

## 4.4 No Fractional Common Shares

Notwithstanding anything to the contrary in this Indenture, the Company shall not be required to issue fractional Common Shares in satisfaction of its obligations hereunder. If any fractional interest in a Common Share would, except for the provisions of this Section 4.4, be deliverable upon the exercise of a Warrant, the Company shall in lieu of delivering the fractional Common Shares therefor satisfy the right to receive such fractional interest by payment to the holder of such Warrant of an amount in funds equal (computed in the case of a fraction of a cent to the next lower cent) to the value of the right to acquire such fractional interest on the basis of the Current Market Price at the Exercise Date. The minimum amount for payment pursuant to this Section shall be \$1.00.

#### 4.5 Expiration of Warrant Certificates

After the Time of Expiry, all rights under any Warrant or this Indenture in respect of which the right of subscription and purchase herein and therein provided for shall not theretofore have been exercised shall wholly cease and terminate and such Warrant shall be void and of no effect.

## 4.6 Cancellation of Surrendered Warrants

All Warrant Certificates surrendered to the Warrant Agent pursuant to the provisions of this Indenture shall be cancelled by the Warrant Agent and the Warrant Agent shall record the cancellation of such Warrant Certificates on the register of holders maintained by the Warrant Agent pursuant to subsection 3.2(1). The Warrant Agent shall, if requested in writing by the Company, furnish or cause to be furnished to the Company a certificate identifying the Warrant Certificates so cancelled and the number of Common Shares which could have been purchased pursuant to each cancelled Warrant Certificate. All Warrants represented by Warrant Certificates that have been duly cancelled shall be without further force or effect whatsoever.

## 4.7 Accounting and Recording

- (1) The Warrant Agent shall promptly account to the Company with respect to Warrants exercised and forward to the Company (or into an account or accounts of the Company with the bank or trust company designated by the Company for that purpose) all monies received on the purchase of Common Shares through the exercise of Warrants. All such monies, and any securities or other instruments from time to time received by the Warrant Agent, shall be received in trust for, and shall be segregated and kept apart by the Warrant Agent in trust for, the Company.
- (2) The Warrant Agent shall record the particulars of the Warrant Certificates exercised which shall include the name or names and addresses of the Persons who become holders of Common Shares on exercise and the Exercise Date and Warrant Certificate number.

### 4.8 Prohibition on Exercise by U.S. Persons; Exception

(1) Warrants may not be exercised by or on behalf of, or for the account or benefit of, any U.S. Person or any person in the United States unless an exemption is available from the registration requirements of the U.S. Securities Act and applicable state securities laws and the holder of the Warrants has furnished an opinion of counsel of recognized standing in form and substance satisfactory to the Company to such effect; provided that a U.S. Purchaser that purchased the Warrants in the United States will not be required to deliver an opinion of counsel in connection with the exercise of Warrants, provided it provides the certification required in subsection 4.8(2)(b) or 4.8(2)(c) below. The Company shall be entitled to rely upon the registered address of the Warrantholder's Form of U.S. Subscription Agreement for Accredited Investors or Qualified Institutional Buyers, attached to the U.S. Placement Memorandum, as applicable, under the Offering for the purchase of Units in determining whether the address is in the United States or the Warrantholder is a U.S. Warrantholder.

- (2) Any holder which exercises any Warrants shall provide/certify substantially as follows, to the Company either:
  - (a) the holder: (a) at the time of exercise of the Warrants is not in the United States; (b) is not a U.S. Person and is not exercising the Warrants on behalf of a U.S. Person; and (c) has in all other aspects complied with the terms of an "offshore transaction" within the meaning of Regulation S under the U.S. Securities Act;
  - (b) the holder: (a) acquired the Warrants directly from the Company pursuant to an executed Form of U.S. Subscription Agreement for Accredited Investors attached to the U.S. Placement Memorandum under the Offering for the purchase of Units; (b) is exercising the Warrants solely for its own account or for the benefit of a U.S. Person or a person in the United States for whose account such holder acquired the Warrants directly from the Company and for whose account such holder exercises sole investment discretion; and (c) was, and any beneficial purchaser for whose account such holder acquired the Warrants and is exercising the Warrants was, an Accredited Investor both on the date the Warrants were purchased from the Company and on Exercise Date of the Warrants; or
  - (c) the holder: (a) acquired the Warrants directly from the Company pursuant to an executed Qualified Institutional Buyer Letter for Qualified Institutional Buyers attached to the U.S. Placement Memorandum under the Offering for the purchase of Units; (b) is exercising the Warrants solely for its own account or for the benefit of a U.S. Person or a person in the United States for whose account such holder acquired the Warrants directly from the Company and for whose account such holder exercises sole investment discretion; and (c) was, and any beneficial purchaser for whose account such holder acquired the Warrants and is exercising the Warrants was, a Qualified Institutional Buyer both on the date the Warrants were purchased from the Company and on Exercise Date of the Warrants;
  - (d) a written opinion of counsel of recognized standing in form and substance satisfactory to the Company to the effect that an exemption from the registration requirements of the U.S. Securities Act and applicable state securities laws is available for the issuance of the Common Shares issuable on exercise of the Warrants.
- (3) No certificates representing Common Shares will be registered or delivered to an address in the United States unless the holder of the Warrant complies with the requirements of paragraphs (b), (c) or (d) of subsection 4.8(2).
- (4) If a Common Share certificate issued with respect to an exercise of Warrants is tendered for transfer and bears the legend set forth in subsection 2.9(2) hereof and the holder thereof has not obtained the prior written consent of the Company, the Warrant Agent or the transfer agent, as the case may be, shall not register such transfer unless the holder complies with the requirements of the said subsection 2.9(2).

#### ARTICLE V

# ADJUSTMENT OF SUBSCRIPTION RIGHTS AND EXERCISE PRICE

# 5.1 Adjustment of Exercise Price and Number of Common Shares Purchasable Upon Exercise

Subject to Section 5.2, the Exercise Price and the number of Common Shares purchasable upon exercise of Warrants shall be subject to adjustment from time to time in the events and in the manner provided as follows:

- (a) <u>Common Share Reorganization</u>. If during the Exercise Period the Company shall:
  - (i) issue Common Shares or securities exchangeable for or convertible into Common Shares to holders of all or substantially all of its then
    outstanding Common Shares by way of stock dividend or other distribution (other than as a Dividend Paid in the Ordinary Course or a
    distribution of Common Shares upon exercise of the Warrants or pursuant to the exercise of directors, officers or employee stock options
    granted under stock option plans of the Company), or
  - (ii) subdivide, redivide or change its outstanding Common Shares into a greater number of Common Shares, or
  - (iii) consolidate, reduce or combine its outstanding Common Shares into a lesser number of Common Shares,

(any of such events in these paragraphs (i), (ii) and (iii) being a **'Common Share Reorganization**'), then the Exercise Price shall be adjusted as of the effective date or record date, as the case may be, at which the holders of Common Shares are determined for the purpose of the Common Share Reorganization by multiplying the Exercise Price in effect immediately prior to such effective date or record date by a fraction, the numerator of which shall be the number of Common Shares outstanding on such effective date or record date before giving effect to such Common Share Reorganization and the denominator of which shall be the number of Common Shares outstanding as of the effective date or record date, as the case may be, after giving effect to such Common Share Reorganization (including, in the case where securities exchangeable for or convertible into Common Shares are distributed, the number of Common Shares that would have been outstanding had such securities been fully exchanged for or converted into Common Shares on such record date or effective date, as the case may be). From and after any adjustment of the Exercise Price pursuant to this subsection 5.1(a), the number of Common Shares purchasable pursuant to this Warrant Certificate shall be adjusted contemporaneously with the adjustment of the Exercise Price in effect immediately prior to the adjustment and the denominator of which shall be the Exercise Price in effect immediately prior to the adjustment and the denominator of which shall be the Exercise Price resulting from such adjustment.

- (b) <u>Rights Offering</u>. If and whenever during the Exercise Period, the Company shall fix a record date for the issue of rights, options or warrants to all or substantially all of the holders of Common Shares under which such holders are entitled, during a period expiring not more than forty-five (45) days after the record date for such issue ("Rights Period"), to subscribe for or purchase Common Shares or securities exchangeable for or convertible into Common Shares at a price per share to the holder (or having a conversion price or exchange price per Share) of less than 95% of the Current Market Price for the Common Shares on such record date (any of such events being called a "Rights Offering"), then the Exercise Price shall be adjusted effective immediately after the end of the Rights Period to a price determined by multiplying the Exercise Price in effect immediately prior to the end of the Rights Period to a price determined by multiplying the Exercise Price in effect immediately prior to the end of the Rights Period to a price determined by multiplying the Exercise Price in effect immediately prior to the end of the Rights Period to a price determined by multiplying the Exercise Price in effect immediately prior to the end of the Rights Period by a fraction:
  - (i) the numerator of which shall be the aggregate of:
    - (1) the number of Common Shares outstanding as of the record date for the Rights Offering, and
    - (2) a number determined by dividing either
    - (a) where the event giving rise to the application of this subsection 5.1(b) was the issue of rights, options or warrants to the holders of Common Shares under which such holders are entitled to subscribe for or purchase additional Common Shares, the product of the number of Common Shares issued or subscribed for during the Rights Period and the price at which such Common Shares are offered,

or, as the case may be,

(b) where the event giving rise to the application of this subsection 5.1(b) was the issue of rights, options or warrants to the holders of Common Shares under which such holders are entitled to subscribe for or purchase securities exchangeable for or convertible into shares, the product of the exchange or conversion price per share of such securities offered and the number of Common Shares for or into which the securities so offered pursuant to the Rights Offering have been exchanged or converted during the Rights Period, by the Current Market Price of the Common Shares as of the record date for the Rights Offering; and  the denominator of which shall be the number of Common Shares outstanding after giving effect to the Rights Offering and including the number of Common Shares actually issued or subscribed for during the Rights Period upon exercise of the rights, warrants or options under the Rights Offering or upon the exercise of the exchange or conversion rights contained in such exchangeable or convertible securities under the Rights Offering.

If the holder has exercised any of the Warrants during the period beginning immediately after the record date for a Rights Offering and ending on the last day of the Rights Period, the holder shall, in addition to the Common Shares to which the holder is otherwise entitled upon such exercise in accordance with Article II hereof, be entitled to that number of additional Common Shares equal to the result obtained when the difference, if any, resulting from the subtraction of the Exercise Price as adjusted for such Rights Offering pursuant to this subsection 5.1(b) from the Exercise Price in effect immediately prior to the end of such Rights Offering is multiplied by the number of Common Shares purchased upon exercise of the Warrants held by such holder during such period, and the resulting product is divided by the Exercise Price as adjusted for such Rights Offering pursuant to this subsection 5.1(b); provided that the provisions of subsection 5.4(1) shall be applicable to any fractional interest in a Common Share to which such holder might otherwise be entitled under the foregoing provisions of this subsection 5.1(b). Such additional Common Shares shall be deelivered to such holder within three (3) Business Days following the end of the Rights Period.

If at any time after the date hereof and prior to the Time of Expiry, any of the events set out in subsection 5.1(b) shall occur and the holder has not exercised any of the Warrants during the Rights Period, and the occurrence of such event results in an adjustment of the Exercise Price pursuant to provisions of this Section 5.1, then the number of Common Shares purchasable pursuant to this Warrant Certificate shall be adjusted contemporaneously with the adjustment of the Exercise Price by multiplying the number of Common Shares then otherwise purchasable on the exercise thereof by a fraction, the numerator of which shall be the Exercise Price in effect immediately prior to the adjustment and the denominator of which shall be the Exercise Price resulting from such adjustment.

- 27 -

- (c) <u>Special Distribution</u>. If and whenever during the Exercise Period, the Company shall issue or distribute to all or to substantially all the holders of the Common Shares:
  - securities of the Company including shares, rights, options or warrants to acquire shares of any class or securities exchangeable for or convertible into or exchangeable into any such shares or cash, property or assets and including evidences of its indebtedness, or
  - (ii) any cash, property or other assets,

and if such issuance or distribution does not constitute Dividends Paid in the Ordinary Course, a Common Share Reorganization or a Rights Offering (any of such non-excluded events being herein called a "**Special Distribution**"), the Exercise Price will be adjusted immediately after such record date so that it will equal the rate determined by multiplying the Exercise Price in effect on such record date by a fraction, of which the numerator shall be the total number of Common Shares outstanding on such record date multiplied by the Current Market Price on the earlier of such record date and the date on which the Company announces its intention to make such distribution, less the aggregate fair market value (as determined by the directors, acting reasonably and in good faith, at the time such distribution is authorized) of such securities, shares or rights, options or warrants or evidences of indebtedness or cash, property or other assets so distributed, and of which the denominator shall be the total number of Common Shares outstanding on such record date multiplied by such Current Market Price. If at any time after the date hereof and prior to the Time of Expiry, any of the events set out in subsection 5.1(c) shall occur and the occurrence of such event results in an adjustment of the Exercise Price pursuant to provisions of this Section 5.1, then the number of Common Shares purchasable pursuant to this Warrant Certificate shall be adjusted contemporaneously with the adjustment of which shall be the Exercise Price in effect immediately prior to the adjustment and the denominator of which shall be the Exercise Price by multiplying the number of Common Shares then otherwise purchasable on the exercise thereof by a fraction, the numerator of which shall be the Exercise Price in effect immediately prior to the adjustment and the denominator of which shall be the Exercise Price resulting from such adjustment.

Capital Reorganization. If and whenever during the Exercise Period there shall be a reclassification of Common Shares at any time outstanding or a (d) change or exchange of the Common Shares into other shares or into other securities (other than a Common Share Reorganization), or a consolidation, amalgamation, arrangement or merger of the Company with or into any other corporation or other entity (other than a consolidation, amalgamation, arrangement or merger which does not result in any reclassification of the outstanding Common Shares or a change or exchange of the Common Shares into other securities), or a transfer of the undertaking or assets of the Company as an entirety or substantially as an entirety to another corporation or other entity (any of such events being herein called a "Capital Reorganization"), the holder, where he has not exercised the right of subscription and purchase under this Warrant Certificate prior to the effective date or record date, as the case may be, of such Capital Reorganization, shall be entitled to receive, and shall accept upon the exercise of such right for the same aggregate consideration, in lieu of the number of Common Shares to which such holder was theretofore entitled upon such exercise, the aggregate number of shares, other securities or other property which such holder would have been entitled to receive as a result of such Capital Reorganization if, on the effective date thereof, he had been the registered holder of the number of Common Shares to which such holder was theretofore entitled to subscribe for and purchase; provided however, that no such Capital Reorganization shall be carried into effect unless all necessary steps shall have been taken to so entitle the holder. If determined appropriate by the board of directors of the Company, acting reasonably and in good faith, and subject to the prior written approval of the principal Canadian stock exchange or over-the-counter market on which the Common Shares are then listed or quoted for trading, appropriate adjustments shall be made as a result of any such Capital Reorganization in the application of the provisions of this Indenture with respect the rights and interest thereafter of the Warrantholder to the end that the provisions of this Indenture shall thereafter correspondingly be made applicable as nearly as may reasonably be possible in relation to any shares or other securities or property thereafter deliverable upon the exercise of the Warrants.

(e) If and whenever at any time after the date hereof and prior to the Time of Expiry, the Company takes any action affecting its Common Shares to which the foregoing provisions of this Section 5.1, in the opinion of the board of directors of the Company, acting reasonably and in good faith, are not strictly applicable, or if strictly applicable would not fairly adjust the rights of the Holder against dilution in accordance with the intent and purposes thereof, or would otherwise materially affect the rights of the holder hereunder, then the Company shall execute and deliver to the holder an amendment hereto providing for an adjustment in the application of such provisions so as to adjust such rights as aforesaid in such a manner as the board of directors of the Company determine to be equitable in the circumstances, acting reasonably and in good faith. The failure of the taking of action by the board of directors of the Company to so provide for any adjustment on or prior to the effective date of any action or occurrence giving rise to such state of facts will be conclusive evidence that the board of directors has determined that it is equitable to make no adjustment in the applications.

### 5.2 Rules Regarding Calculation of Adjustment of Exercise Price and Number of Common Shares Purchasable Upon Exercise

For the purposes of Section 5.1:

- (1) The adjustments provided for in Section 5.1 are cumulative, and shall, in the case of adjustments to the Exercise Price be computed to the nearest one-tenth of one cent and shall be made successively whenever an event referred to therein shall occur, subject to the following paragraphs of this Section 5.2.
- (2) No adjustment in the Exercise Price shall be required unless such adjustment would result in a change of at least 1% in the prevailing Exercise Price and no adjustment shall be made in the number of Common Shares purchasable upon exercise of the Warrants unless it would result in a change of at least one one-hundredth of a Common Share; provided, however, that any adjustments which, except for the provisions of this Section 5.2(2) would otherwise have been required to be made, shall be carried forward and taken into account in any subsequent adjustment.
- (3) No adjustment in the Exercise Price or in the number of Common Shares purchasable upon exercise of Warrants shall be made in respect of any event described in Section 5.1, other than the events referred to in subsection 5.1(a)(ii) and 5.1(a)(iii), if the holder is entitled to participate in such event on the same terms, *mutatis mutandis*, as if it had exercised its Warrants prior to or on the effective date or record date of such event. The terms of the participation of the holder in such event shall be subject to any necessary approval of the principal Canadian stock exchange or over-the-counter market on which the Common Shares are then listed or quoted for trading.
- (4) No adjustment in the Exercise Price shall be made pursuant to Section 5.1 in respect of the issue from time to time:
  - (a) of Common Shares purchasable on exercise of the Warrants governed by this Warrant Indenture;
  - (b) of a Dividend Paid in the Ordinary Course of Common Shares to holders of Common Shares who exercise an option or election to receive substantially equivalent dividends in Common Shares in lieu of receiving a cash dividend pursuant to a dividend reinvestment plan or similar plan adopted by the Company in accordance with the requirements of the principal Canadian stock exchange or over-the-counter market on which the Common Shares are then listed or quoted for trading and applicable securities laws;
  - (c) of Common Shares pursuant to any stock option plan, stock purchase plan or benefit plan in force at the date hereof for directors, officers, employees, advisers or consultants of the Company, as such option or plan is amended or superseded from time to time in accordance with the requirements of the principal Canadian stock exchange or over-the-counter market on which the Common Shares are then listed or quoted for trading and applicable securities laws, and such other stock option plan, stock purchase plan or benefit plan as may be adopted by the Company in accordance with the requirements of the principal Canadian stock exchange or over-the-counter market on which the Common Shares are then listed or quoted for trading and applicable securities laws;

- 30 -
- (d) of Common Shares as payment of interest on any outstanding notes;
- (e) of the issuance of securities in connection with strategic license agreements and other partnering arrangements of the Company or any subsidiary thereof; or
- (f) of Common Shares as full or partial consideration in connection with a strategic merger, consolidation or purchase of substantially all of the securities or assets of a corporation or other entity;

and any such issue shall be deemed not to be a Common Share Reorganization or Capital Reorganization.

- (5) If a dispute shall at any time arise with respect to adjustments provided for in Section 5.1, such dispute shall, absent manifest error, be conclusively determined by the Company's Auditors, or if they are unable or unwilling to act, by such other firm of independent chartered accountants as may be selected by action by the Directors and any such determination, absent manifest error, shall be binding upon the Company, the Warrant Agent and the Warrantholders. Notwithstanding the foregoing, such determination shall be subject to compliance with all regulatory requirements (including the rules of any stock exchange or over-the-counter market on which the Common Shares are then listed or quoted for trading). Such auditors or accountants shall be provided access to all necessary records of the Company. In the event that any such determination is made, the Company shall deliver a certificate to the Warrant Agent and a notice to the Warrantholders in the manner contemplated in Section 3.6 describing such determination.
- (6) If the Company shall set a record date to determine the holders of the Common Shares for the purpose of entitling them to receive any dividend or distribution or any subscription or purchase rights and shall, thereafter and before the distribution to such shareholders of any such dividend, distribution or subscription or purchase rights, legally abandon its plan to pay or deliver such dividend, distribution or subscription or purchase rights, then no adjustment in the Exercise Price or the number of Common Shares purchasable upon exercise of any Warrant shall be required by reason of the setting of such record date.
- (7) In the absence of a resolution of the board of directors of the Company fixing a record date for any dividend or distribution referred to in subsection 5.1(a)(i) or any Rights Offering or Special Distribution, the Company shall be deemed to have fixed as the record date therefor the date on which such dividend or distribution is effected.

- (8) As a condition precedent to the taking of any action which would require any adjustment in any of the subscription rights pursuant to this Warrant Certificate, including the Exercise Price and the number or class of shares or other securities which are to be received upon the exercise thereof, the Company shall take any corporate action which may, in the opinion of Counsel, be necessary in order that the Company have unissued and reserved in its authorized capital and may validly and legally issue as fully paid and non-assessable all the shares or other securities which the holder of such Warrant Certificate is entitled to receive on the full exercise thereof in accordance with the provisions hereof.
- (9) In case the Company, after the date hereof, shall take any action affecting any Common Shares, other than action described in Section 5.1, which in the opinion of the Directors acting reasonably and in good faith would materially affect the rights of Warrantholders, the Exercise Price and the number or class of shares or other securities which are to be received upon the exercise thereof shall be adjusted in such manner, if any, and at such time, as the Directors, in their sole discretion acting in good faith, may determine to be equitable in the circumstances. Such adjustment to be subject to TSX approval in the event that the Warrants are listed for trading on the TSX. Failure of the taking of action by the Directors so as to provide for an adjustment in the Exercise Price and the number or class of shares or other securities which are to be received upon the exercise thereof prior to the effective date of any action by the Company affecting the Common Shares shall be conclusive evidence that the directors have determined that it is equitable to make no adjustment in the circumstances.
- (10) The Warrant Agent shall be entitled to act and rely on any adjustment calculations by the Company or the Company's Auditors.
- (11) On the happening of each and every such event set out in Section 5.1, the applicable provisions of the Warrant Certificate, including the Exercise Price, shall, *ipso facto*, be deemed to be amended accordingly and the Company shall take all necessary action so as to comply with such provisions as so amended.

#### 5.3 Postponement of Subscription

In any case in which the application of Section 5.1 shall require that an adjustment shall be effective immediately after a record date for an event referred to herein, the Company may defer, until the occurrence of such an event:

- (a) issuing to the Warrantholder of any Warrant exercised after such record date and before the occurrence of such event, the additional Common Shares issuable upon such exercise by reason of the adjustment required by such event, and
- (b) delivering to such Warrantholder any distributions declared with respect to such additional Common Shares after such Exercise Date and before such event;

provided, however, that the Company shall deliver or cause to be delivered to such Warrantholder, an appropriate instrument evidencing such Warrantholder's right, upon the occurrence of the event requiring the adjustment, to an adjustment in the Exercise Price and/or the number of Common Shares purchasable on the exercise of any Warrant and to such distributions declared with respect to any additional Common Shares issuable on the exercise of any Warrant.

#### 5.4 Notice of Adjustment of Exercise Price and Number of Common Shares Purchasable Upon Exercise

- (1) At least ten (10) Business Days prior to the effective date or record date, as the case may be, of any event which requires or might require adjustment in any of the subscription rights pursuant to this Warrant Certificate, including the Exercise Price and the number of Common Shares which are purchasable upon the exercise thereof, the Company shall be required to (a) file with the Warrant Agent a certificate of the Company specifying the particulars of such event (including the record date or the effective date for such event) and, if determinable, the required adjustment and the computation of such adjustment; and (b) give notice to the Warrantholders of the particulars of such event (including the record date or the effective date for such event) and, if determinable, the required adjustment. Notice to the Warrantholders shall be given in the manner specified in Section 3.6.
- (2) In case any adjustment for which such notice has been given is not then determinable, the Company shall promptly after such adjustment is determinable (a) file with the Warrant Agent a computation of such adjustment; and (b) give notice to the Warrantholders of the adjustment. Notice to the Warrantholders shall be given in the manner specified in Section 3.6.
- (3) The Warrant Agent may, absent manifest error, for all purposes of the adjustment act and rely upon the certificate of the Company or of the Company's Auditors submitted to it pursuant to subsection 5.4(1) and on the accuracy of such certificate, calculations and formulas contained therein.

# ARTICLE VI PURCHASES BY THE COMPANY

# 6.1 Purchases of Warrants for Cancellation

The Company may, at any time and from time to time, purchase Warrants by invitation for tender, by private contract or otherwise (which shall include a purchase through an investment dealer or firm holding membership on a Canadian stock exchange) on such terms as the Company may determine. All Warrants purchased pursuant to the provisions of this Section 6.1 shall be forthwith delivered to, cancelled and destroyed by the Warrant Agent and shall not be reissued.

# 6.2 Optional Purchases by the Company

Subject to applicable law, the Company may from time to time purchase on any stock exchange, in the open market, by private agreement or otherwise any of the Warrants. Any such purchase shall be made at the lowest price or prices at which, in the opinion of the Directors, such Warrants are then obtainable, plus reasonable costs of purchase, and may be made in such manner, from such Persons, and on such other terms as the Company in its sole discretion may determine. The Warrant Certificates representing the Warrants purchased pursuant to this Section 6.2 shall forthwith be delivered to and cancelled by the Warrant Agent.

# ARTICLE VII COVENANTS OF THE COMPANY

# 7.1 Covenants of the Company

The Company covenants with the Warrant Agent for the benefit of the Warrantholders and the Warrant Agent that so long as any Warrants remain outstanding and may be exercised:

- the Company will at all times maintain its existence and will carry on and conduct its business in a prudent manner in accordance with industry standards and good business practice, and will keep or cause to be kept proper books of account in accordance with applicable law;
- (b) the Company will reserve and keep available a sufficient number of Common Shares for issuance upon the exercise of Warrants issued by the Company;
- (c) the Company will cause the Common Shares from time to time subscribed for pursuant to the Warrants issued by the Company hereunder, in the manner herein provided, to be duly issued in accordance with the Warrants and the terms hereof;
- (d) the Company will cause the certificates representing the Common Shares from time to time to be acquired, pursuant to the Warrants in the manner herein provided, to be duly issued and delivered in accordance with the Warrants and the terms hereof;
- (e) the Company shall make all requisite filings under the Securities Act (Ontario), the Securities Act (British Columbia) or the Securities Act (Alberta) and the regulations made thereunder including those necessary to remain a reporting issuer not in default of any requirement of such acts and regulations;
- (f) the Company shall use all reasonable efforts to maintain the listing of the Common Shares on the TSX (or such other recognized stock exchange as may be agreed upon by the Company and the Agent) and to have the Common Shares issued pursuant to the exercise of the Warrants listed and posted for trading on the TSX (or such other recognized stock exchange as may be agreed upon by the Company and the Agent) as expeditiously as possible;
- (g) all Common Shares that shall be issued by the Company upon exercise of the rights provided for herein shall be issued as fully paid and non-assessable;
- (h) the Company will perform and carry out all of the acts or things to be done by it as provided in this Indenture;
- (i) the Company will promptly advise the Warrant Agent and the Warrantholders in writing of any default under the terms of this Indenture; and
- (j) the Company confirms that as at the date of execution of this Indenture it does not have a class of securities registered pursuant to Section 12 of the U.S. Securities and Exchange Act of 1934, as amended or have a reporting obligation pursuant to Section 15(d) of the Act. The Company covenants that in the event that (i) any class of its securities shall become registered pursuant to Section 12 of the U.S. Securities and Exchange Act or the Company shall incur a reporting obligation pursuant to Section 15(d) of the U.S. Securities and Exchange Act or the Company shall incur a reporting obligation pursuant to Section 15(d) of the U.S. Securities and Exchange Act, or (ii) any such registration or reporting obligation shall be terminated by the Company in accordance with the U.S. Securities and Exchange Act, the Company shall promptly deliver to the Warrant Agent an officers' certificate notifying the Warrant Agent of such registration or termination and such other information as the Warrant Agent may require at the time. The Company acknowledges that the Warrant Agent is relying upon the foregoing covenants in order to meet certain SEC obligations with respect to those clients who are filing with the SEC.

# 7.2 Warrant Agent's Remuneration and Expenses

The Company covenants that it will pay to the Warrant Agent from time to time reasonable remuneration for its services hereunder and will pay or reimburse the Warrant Agent upon its request for all reasonable expenses, disbursements and advances incurred or made by the Warrant Agent in the administration or execution of the duties hereby created, except any such expense, disbursement or advance as may arise out of or result from the gross negligence, wilful misconduct or fraud of the Warrant Agent. Any amount owing hereunder and remaining unpaid 30 days from the invoice date will bear interest at the then current rate charged by the Warrant Agent against unpaid invoices and shall be payable upon demand. This Section 7.2 shall survive the termination of this Indenture and the removal or resignation of the Warrant Agent.

# 7.3 Performance of Covenants by Warrant Agent

Subject to Section 11.6, if the Company shall fail to perform any of its covenants contained in this Warrant Indenture and the Company has not rectified such failure within twenty-five (25) Business Days after either giving notice of such default pursuant to subsection 7.1(i) or receiving written notice from the Warrant Agent of such failure, the Warrant Agent may notify the Warrantholders in the manner provided in Section 3.6 of such failure on the part of the Company or, subject to Section 11.1, may itself perform any of the covenants capable of being performed by it, but shall be under no obligation to perform such covenants or to notify the Warrantholders of such performance by it. All reasonable sums expended or advanced by the Warrant Agent in so doing shall be repayable as provided in Section 7.2. No such performance, expenditure or advance by the Warrant Agent shall relieve the Company of any default hereunder or of its continuing obligations under the covenants herein contained.

# 7.4 Securities Filings

- (1) If, in the opinion of Counsel, any filing is required to be made with any governmental or other authority in Canada (including the securities regulatory authorities or any exchange or quotation system upon which any securities of the Company are listed or quoted for trading), or any other step is required before any Common Shares issuable upon the exercise of Warrants by a Warrantholder may properly and legally be issued in Canada, the Company covenants that it will take such action so required at its own expense.
- (2) The Company will give written notice of the issue of Common Shares pursuant to the exercise of Warrants, in such detail as may be required, to each securities administrator in each jurisdiction in which there is legislation requiring the giving of such notice and to the TSX.

# 7.5 Certificates of No Default

At any time if requested by the Warrant Agent, the Company shall deliver to the Warrant Agent an officers' certificate stating that the Company has complied to the best of its knowledge, in all material respects, with all covenants, conditions or other requirements contained in this Indenture. In the event that the Company has not complied, in all material respects, with all the covenants and conditions contained herein, it will advise the Warrant Agent and the holders of such default as soon as reasonably practicable, specifying the covenant, condition or other requirement which has not been complied with and giving particulars of such non-compliance.

# ARTICLE VIII ENFORCEMENT

# 8.1 Suits by Warrantholders

(1) <u>Warrantholders May Not Sue</u>. Except to the extent that the rights of an individual Warrantholder or group of Warrantholders would be prejudiced thereby, no Warrantholder has the right to institute any action or proceeding or to exercise any other remedy authorized hereunder for the purpose of enforcing any right on behalf of the Warrantholders as a whole or for the execution of any trust or power hereunder or for the appointment of a liquidator or receiver or receiver and manager or for a receiving order under the *Bankruptcy and Insolvency Act* (Canada) or to have the Company wound up or to file or prove a claim in any liquidation or bankruptcy proceedings, unless the Warrant Agent has received a Warrantholders' Request directing it to take the requested action and has been provided with sufficient funds or other security and/or such indemnity satisfactory to the Warrant Agent in respect of the costs, expenses and liabilities that may be incurred by it in so proceeding and the Warrant Agent has failed to act within a reasonable time thereafter. If the Warrant Agent has so failed to act, but not otherwise, any Warrantholder acting on behalf of all Warrantholders will be entitled to take any of the proceedings that the Warrant Agent has any right have taken hereunder. No Warrantholder has any right in any manner whatsoever to effect, disturb or prejudice the rights hereby created by its action or to enforce any right hereunder on under any Warrantholders be conditions and in the manner herein provided. Any money received as a result of a proceeding taken by any Warrantholder on behalf of all the Warrantholders hereunder must be forthwith paid to the Warrant Agent.

- (2) <u>Warrant Agent not Required to Possess Warrants</u>. All rights of action under this Indenture may be enforced by the Warrant Agent without the possession of any of the Warrants or the production thereof on any trial or other proceedings relative thereto.
- (3)Warrant Agent May Institute Proceedings. The Warrant Agent shall be entitled and empowered, either in its own name or as Warrant Agent of an express trust, or as attorney-in-fact for the Warrantholders, or in any one or more of such capacities, to file such proof of debt, amendment of proof of debt, claim, petition or other document as may be necessary or advisable in order to have the claim of the Warrant Agent and the Warrantholders allowed in any insolvency, bankruptcy, liquidation or other judicial proceedings relative to the Company or its creditors or relative to or affecting its property. The Warrant Agent is hereby irrevocably appointed (and the successive respective Warrantholders by taking and holding the same shall be conclusively deemed to have so appointed the Warrant Agent) the true and lawful attorney-in-fact of the respective Warrantholders with authority to make and file in the respective names of the Warrantholders or on behalf of the Warrantholders as a class, subject to deduction from any such claims of the amounts of any claims filed by any of the Warrantholders themselves if and to the extent permitted hereunder, any proof of debt, amendment of proof of debt, claim, petition or other document in any such proceedings and to receive payment of any sums becoming distributable on account thereof, and to execute any such other papers and documents and to do and perform any and all such acts and things for and on behalf of the Warrantholders, as may be necessary or advisable in the opinion of the Warrant Agent acting and relying on the advice of Counsel, in order to have the respective claims of the Warrant Agent and of the Warrantholders against the Company or its property allowed in any such proceeding, and to receive payment of or on account of such claims; provided, however, that nothing contained in this Indenture shall be deemed to give the Warrant Agent, unless so authorized by Extraordinary Resolution, any right to accept or consent to any plan of reorganization or otherwise by action of any character in such proceeding to waive or change in any way any right of any Warrantholder. The Warrant Agent shall also have the power, but not the obligation, at any time and from time to time to institute and to maintain such suits and proceedings as it may be advised shall be necessary or advisable to preserve and protect its interests and the interests of the Warrantholders. Any such suit or proceeding instituted by the Warrant Agent may be brought in the name of the Warrant Agent as Warrant Agent of an express trust, and any recovery of judgment shall be for the rateable benefit of the Warrantholders subject to the provisions of this Indenture. In any proceeding brought by the Warrant Agent (and also any proceeding in which a declaratory judgment of a court may be sought as to the interpretation or construction of any provision of this Indenture, to which the Warrant Agent shall be a party), the Warrant Agent shall be held to represent all the Warrantholders, and it shall not be necessary to make any Warrantholders parties to any such proceeding.
- (4) Subject to the provisions of this Section and otherwise in this Indenture, all or any of the rights conferred upon a Warrantholder by the terms of a Warrant may be enforced by such Warrantholder by appropriate legal proceedings without prejudice to the right which is hereby conferred upon the Warrant Agent to proceed in its own name to enforce each and all of the provisions herein contained for the benefit of all of the Warrantholders from time to time.

## 8.2 Limitation of Liability

The obligations hereunder are not personally binding upon nor shall resort hereunder be had to, the private property of any of the past, present or future Directors or Shareholders of the Company or of any successor corporation or of any of the past, present or future officers, employees or agents of the Company or of any successor corporation shall be bound in respect hereof.

# ARTICLE IX MEETINGS OF WARRANTHOLDERS

#### 9.1 Right to Convene Meetings

The Warrant Agent may at any time and from time to time, and shall on receipt of a written request of the Company or of a Warrantholders' Request and upon receiving sufficient funds and being indemnified to its reasonable satisfaction by the Company or by the Warrantholders signing such Warrantholders' Request against the cost of which may be incurred in connection with the calling and holding of such meeting, convene a meeting of the Warrantholders' Request, failing to so convene a meeting within fifteen (15) Business Days after receipt of such written request of the Company or Warrantholders' Request, funds and indemnity given as aforesaid, the Company or such Warrantholders, as the case may be, may convene such meeting. Every such meeting shall be held in the City of Toronto or at such other place as may be approved or determined by the Warrant Agent unless the meeting was convened by the Company or by Warrantholders convening the meeting, as the case may be, as a result of the Warrant Agent's failure or refusal to convene the meeting, in which case the meeting shall be held at such place as may be determined by the Company or by the Warrantholders convening the meeting, as the case may be.

#### 9.2 Notice

At least twenty-one (21) Business Days prior notice of any meeting of Warrantholders shall be given to the Warrantholders in the manner provided for in Section 3.6 and a copy of such notice shall be sent by mail to the Warrant Agent (unless the meeting has been called by the Warrant Agent) and to the Company (unless the meeting has been called by the Company). Such notice shall state the time when and the place where the meeting is to be held, shall state briefly the general nature of the business to be transacted thereat and shall contain such information as is reasonably necessary to enable the Warrantholders to make a reasoned decision on the matter, but it shall not be necessary for any such notice to set out the terms of any resolution to be proposed nor any of the provisions of this Article IX. The notice convening any such meeting may be signed by an appropriate officer of the Warrant Agent or by the Company or by the Warrantholder or Warrantholders convening the meeting.

# 9.3 Chairman

An individual (who need not be a Warrantholder) nominated in writing by the Warrant Agent shall be chairman of the meeting and if no individual is so nominated, or if the individual so nominated is not present within fifteen minutes from the time fixed for the holding of the meeting, or if such Person is unable or unwilling to act as chairman, the Warrantholders present in person or by proxy shall choose some individual present to be chairman.

# 9.4 Quorum

Subject to the provisions of Section 9.11, at any meeting of the Warrantholders a quorum shall consist of Warrantholders present in person or by proxy and entitled to purchase at least 25% of the aggregate number of Common Shares which could be purchased pursuant to all the then outstanding Warrants, provided that at least two Persons entitled to vote thereat are personally present (except in the case where there is only one Warrantholder). If a quorum of the Warrantholders shall not be present within thirty minutes from the time fixed for holding any meeting, the meeting, if summoned by the Warrantholders or on a Warrantholders' Request, shall be dissolved; but in any other case the meeting shall be adjourned to the same day in the next week (unless such day is not a Business Day in which case it shall be adjourned to the next following Business Day) at the same time and place and subject to Section 9.11 no notice of the adjournment need be given. Any business may be brought before or dealt with at an adjourned meeting which might have been dealt with at the original meeting in accordance with the notice calling the same. No business shall be transacted at any meeting an quorum is present at the commencement of business. At the adjourned meeting the Warrantholders present in person or by proxy shall form a quorum and may transact the business for which the meeting was originally convened, notwithstanding that they may not be entitled to purchase at least 25% of the aggregate number of Common Shares which may be purchased pursuant to all then outstanding Warrants.

### 9.5 Power to Adjourn

The chairman of any meeting at which a quorum of the Warrantholders is present may, with the consent of the meeting, adjourn any such meeting, and no notice of such adjournment need be given except such notice, if any, as the meeting may prescribe.

#### 9.6 Show of Hands

Every question submitted to a meeting shall be decided in the first place by a majority of the votes given on a show of hands except that votes on an Extraordinary Resolution shall be given in the manner hereinafter provided. At any such meeting, unless a poll is duly demanded as herein provided, a declaration by the chairman that a resolution has been carried or carried unanimously or by a particular majority or lost or not carried by a particular majority shall be conclusive evidence of the fact.

# 9.7 Poll and Voting

- (1) On every Extraordinary Resolution, and on any other question submitted to a meeting and after a vote by show of hands when demanded by the chairman or by one or more of the Warrantholders acting in Person or by proxy, a poll shall be taken in such manner as the chairman shall direct. Questions other than those required to be determined by Extraordinary Resolution shall be decided by a majority of votes cast on the poll.
- (2) On a show of hands, every Person who is present and entitled to vote, whether as a Warrantholder or as proxy for one or more absent Warrantholders, or both, shall have one vote. On a poll, each Warrantholder present in person or represented by a proxy duly appointed by instrument in writing shall be entitled to one vote in respect of each Common Share which he is entitled to purchase pursuant to the Warrant or Warrants then held or represented by him. A proxy need not be a Warrantholder. The chairman of any meeting shall be entitled, both on a show of hands and on a poll, to vote in respect of the Warrants, if any, held or represented by him.

- (1) Subject to the provisions of this Indenture, the Warrant Agent or the Company with the approval of the other party may from time to time make and from time to time vary such regulations as it shall think fit:
  - (a) for the deposit of voting certificates and instruments appointing proxies at such place and time as the Warrant Agent, the Company or the Warrantholders convening the meeting, as the case may be, may in the notice convening the meeting direct;
  - (b) for the deposit of voting certificates and instruments appointing proxies at some approved place or places other than the place at which the meeting is to be held and enabling particulars of such instruments appointing proxies to be mailed, delivered or sent by facsimile transmission before the meeting to the Company or to the Warrant Agent at the place where the same is to be held and for the voting of proxies so deposited as though the instruments themselves were produced at the meeting;
  - (c) for the form of the voting certificates and instrument of proxy and the manner in which the form of proxy may be executed; and
  - (d) generally for the calling of meetings of Warrantholders and the conduct of business thereat including setting a record date for Warrantholders entitled to receive notice of or to vote at such meeting.
- (2) Any regulations so made shall be binding and effective and the votes given in accordance therewith shall be valid and shall be counted. Save as such regulations may provide, or as may be expressly provided for herein the only Persons who shall be recognized at any meeting as a Warrantholder, or be entitled to vote or be present at the meeting in respect thereof (subject to Section 9.9) shall be Warrantholders or Persons holding voting certificates or proxies of Warrantholders.

#### 9.9 Company, Warrant Agent and Warrantholders May be Represented

The Company and the Warrant Agent, by their respective directors, officers and employees, and the Counsel for the Company, for the Warrant Agent and for any Warrantholder may attend any meeting of the Warrantholders, but shall have no vote as such, except in their capacity as Warrantholders.

# 9.10 Powers Exercisable by Extraordinary Resolution

In addition to all other powers conferred upon them by any other provisions of this Indenture or by law, the Warrantholders at a meeting shall have the power, exercisable from time to time by Extraordinary Resolution, subject to applicable law and any regulatory approval:

- (a) to agree to any modification, abrogation, alteration, compromise or arrangement of the rights of Warrantholders or (with the consent of the Warrant Agent, such consent not to be unreasonably withheld) the Warrant Agent in its capacity as Warrant Agent hereunder or on behalf of the Warrantholders against the Company whether such rights arise under this Indenture, the Warrant Certificate or otherwise, provided that following such action the rights of the Warrantholders or any individual Warrantholder shall not exceed the rights of the Warrantholders hereunder, or otherwise result in an increase of the obligations and liabilities of the Company hereunder;
- (b) to amend, alter or repeal any Extraordinary Resolution previously passed or sanctioned by the Warrantholders;
- (c) to direct or to authorize the Warrant Agent, subject to its prior indemnification pursuant to subsection 11.1(2), to enforce any of the covenants on the part of the Company contained in this Indenture or the Warrant Certificates or to enforce any of the rights of the Warrantholders in any manner specified in such Extraordinary Resolution or to refrain from enforcing any such covenant or right;
- (d) to waive, and to direct the Warrant Agent to waive, any default on the part of the Company in complying with any provisions of this Indenture or the Warrant Certificates either unconditionally or upon any conditions specified in such Extraordinary Resolution;
- (e) to restrain any Warrantholder from taking or instituting any suit, action or proceeding against the Company for the enforcement of any of the covenants on the part of the Company contained in this Indenture or the Warrant Certificates or to enforce any of the rights of the Warrantholders as set out in this Indenture;
- (f) to assent to a compromise or arrangement with a creditor or creditors or a class or classes of creditors, whether secured or otherwise, and with holders of any shares or other securities of the Company;
- (g) to direct any Warrantholder who, as such, has brought any suit, action or proceeding to stay or to discontinue or otherwise to deal with the same upon payment of the costs, charges and expenses reasonably and properly incurred by such Warrantholder in connection therewith; and
- (h) to remove the Warrant Agent and appoint a successor warrant agent in the manner specified in Section 11.7 hereof.

# 9.11 Meaning of Extraordinary Resolution

- (1) The expression "Extraordinary Resolution" when used in this Indenture means, subject as hereinafter provided in this Section 9.11 and in Section 9.14, a resolution (i) passed at a meeting of the holders of Warrants duly convened for that purpose and held in accordance with the provisions of this Article IX at which there are holders of Warrants present in person or represented by proxy representing at least 25% of the aggregate number of all the then outstanding Warrants and passed by the affirmative vote of Warrantholders representing not less than 66 2/3% of the aggregate number of all the then outstanding Warrants represented at the meeting and voted on the poll upon such resolution; or (ii) adopted by an instrument in writing signed by the holders of Warrants representing not less than 66 2/3% percent of the aggregate number of all the then outstanding Warrants.
- (2) If, at any meeting called for the purpose of passing an Extraordinary Resolution, Warrantholders entitled to purchase at least 25% of the aggregate number of all the then outstanding Warrants are not present in person or by proxy within 30 minutes after the time appointed for the meeting then the meeting, if convened by Warrantholders or on a Warrantholders' Request, shall be dissolved; but in any other case it shall stand adjourned to such day, being not less than ten (10) Business Days later, and to such place and time as may be appointed by the chairman. Not less than three (3) days' prior notice shall be given of the time and place of such adjourned meeting in the manner provided for in Section 3.6. Such notice shall state that at the adjourned meeting the Warrantholders present in person or by proxy shall form a quorum but it shall not be necessary to set forth the purposes for which the meeting was originally called or any other particulars. At the adjourned meeting the Warrantholders present in person or by proopsed at such adjourned meeting and passed by the requisite vote as provided in subsection 9.11(1) shall be an Extraordinary Resolution within the meaning of this Indenture notwithstanding that Warrantholders representing at least 25% of all the then outstanding Warrants are not present in person or by proxy at such adjourned meeting.
- (3) Votes on an Extraordinary Resolution shall always be given on a poll and no demand for a poll on an Extraordinary Resolution shall be necessary.

# 9.12 Powers Cumulative

It is hereby declared and agreed that any one or more of the powers or any combination of the powers in this Indenture stated to be exercisable by the Warrantholders by Extraordinary Resolution or otherwise may be exercised from time to time and the exercise of any one or more of such powers or any combination of powers from time to time shall not be deemed to exhaust the right of the Warrantholders to exercise such power or powers or combination of powers then or thereafter from time to time.

### 9.13 Minutes

Minutes of all resolutions and proceedings at every meeting of Warrantholders shall be made and duly entered in books to be provided from time to time for that purpose by the Company, and any such minutes as aforesaid, if signed by the chairman of the meeting at which such resolutions were passed or proceedings had, shall be prima facie evidence of the matters therein stated and, until the contrary is proved, every such meeting in respect of the proceedings of which minutes shall have been made shall be deemed to have been duly convened and held, and all resolutions passed or proceedings taken thereat shall be deemed to have been duly passed and taken.

#### 9.14 Instruments in Writing

All actions which may be taken and all powers that may be exercised by the Warrantholders at a meeting held as provided in this Article IX may also be taken and exercised by Warrantholders representing at least 66 2/3% of the aggregate number of all the then outstanding Warrants by an instrument in writing signed in one or more counterparts by such Warrantholders in person or by attorney duly appointed in writing, and the expression "Extraordinary Resolution" when used in this Indenture shall include an instrument so signed.

# 9.15 Binding Effect of Resolutions

Every resolution and every Extraordinary Resolution passed in accordance with the provisions of this Article IX at a meeting of Warrantholders shall be binding upon all the Warrantholders, whether present at or absent from such meeting, and every instrument in writing signed by Warrantholders in accordance with Section 9.14 shall be binding upon all the Warrantholders, whether signatories thereto or not, and each and every Warrantholder and the Warrant Agent (subject to receiving prior indemnification pursuant to subsection 11.1(2)) shall be bound to give effect accordingly to every such resolution and instrument in writing. In the case of an instrument in writing the Warrant Agent shall give notice in the manner contemplated in Section 3.6 and Section 13.1 of the effect of the instrument in writing to all Warrantholders and the Company as soon as is reasonably practicable.

# 9.16 Holdings by Company Disregarded

In determining whether Warrantholders are present at a meeting of Warrantholders for the purpose of determining a quorum or have concurred in any consent, waiver, Extraordinary Resolution, Warrantholders' Request or other action under this Indenture, Warrants owned legally or beneficially by the Company or any Subsidiary of the Company or any other Affiliate of the Company, as determined in accordance with the provisions of Section 13.6, shall be disregarded. The Company shall provide, upon the written request of the Warrant Agent, a certificate as to the registration particulars of any Warrants held by the Company.

# ARTICLE X SUPPLEMENTAL INDENTURES

# 10.1 Provision for Supplemental Indentures for Certain Purposes

From time to time the Company (when properly authorized by action by the Directors) and the Warrant Agent may, subject to the provisions hereof, and they shall, when so directed in accordance with the provisions hereof and regulatory approval, execute and deliver by their proper officers, indentures, or instruments supplemental hereto, which thereafter shall form part hereof, for any one or more or all of the following purposes:

- (a) providing for the issue of additional Warrants hereunder and any consequential amendments hereto as may be required by the Warrant Agent, relying on advice of Counsel;
- (b) setting forth any adjustments resulting from the application of the provisions of Section 5.1 or any modification affecting the rights of Warrantholders hereunder on exercise of the Warrants, provided that any such adjustments or modifications shall be subject to compliance with all regulatory requirements (including the rules of any stock exchange or over-the-counter market on which the Common Shares are then listed or quoted for trading);
- (c) adding to the provisions hereof such additional covenants and enforcement provisions as, in the opinion of Counsel, are necessary or advisable, provided that the same are not in the opinion of the Warrant Agent, relying on the advice of Counsel, prejudicial to the rights or interests of the Warrantholders as a group;
- (d) giving effect to any Extraordinary Resolution passed as provided in Article IX;
- (e) making such provisions not inconsistent with this Indenture as may be necessary or desirable with respect to matters or questions arising hereunder, provided that such provisions are not, in the opinion of the Warrant Agent, relying on the advice of Counsel, prejudicial to the rights or interests of the Warrantholders as a group;
- (f) adding to or altering the provisions hereof in respect of the transfer of Warrants, making provision for the exchange of Warrant Certificates, and making any modification in the form of the Warrant Certificates which does not affect the substance thereof;
- (g) modifying any of the provisions of this Indenture or relieving the Company from any of the obligations, conditions or restrictions herein contained, provided that such modification or relief shall be or become operative or effective only if, in the opinion of the Warrant Agent, relying on the advice of Counsel, such modification or relief in no way prejudices any of the rights or interests of the Warrantholders as a group or of the Warrant Agent, and provided further that the Warrant Agent may in its sole discretion decline to enter into any such supplemental indenture which in its opinion may not afford adequate protection to the Warrant Agent when the same shall become operative; and
- (h) for any other purpose not inconsistent with the terms of this Indenture, including the correction or rectification of any ambiguities, defective or inconsistent provisions, errors, mistakes or omissions herein, provided that in the opinion of the Warrant Agent, relying on the advice of Counsel, the rights or interests of the Warrant Agent and of the Warrantholders as a group are in no way prejudiced thereby.

# 10.2 Successor Companies

In the case of the consolidation, amalgamation, merger or transfer of the undertaking or assets of the Company as an entirety or substantially as an entirety to another corporation ("successor corporation"), the successor corporation resulting from such consolidation, amalgamation, merger or transfer (if not the Company) shall expressly assume, by supplemental indenture satisfactory in form to the Warrant Agent and executed and delivered to the Warrant Agent, the due and punctual performance and observance of each and every covenant and condition of this Indenture to be performed and observed by the Company.

# ARTICLE XI CONCERNING THE WARRANT AGENT

### 11.1 Indenture Legislation

- (1) If, and to the extent, any provision of this Indenture limits, qualifies or conflicts with a mandatory requirement of applicable statutes of Canada and its provinces and the regulations under those statutes relating to warrant indentures ("**Applicable Legislation**"), such mandatory requirement shall prevail.
- (2) The Company and the Warrant Agent agree that each will at all times in relation to this Indenture and any action to be taken hereunder observe and comply with and be entitled to the benefit of Applicable Legislation.

# 11.2 Rights and Duties of Warrant Agent

(1) In the exercise of the rights and duties prescribed or conferred by the terms of this Indenture, the Warrant Agent shall act honestly and in good faith with a view to the best interests of the Warrantholders and shall exercise that degree of care, diligence and skill that a reasonably prudent warrant agent would exercise in comparable circumstances. No provision of this Indenture shall be construed to relieve the Warrant Agent from, or require any Person to indemnify the Warrant Agent against, liability for its own gross negligence, wilful misconduct or fraud. The duties and obligations of the Warrant Agent shall be determined solely by the provisions hereof and, accordingly, the Warrant Agent shall only be responsible for the performance of such duties and obligations as it has undertaken herein. The Warrant Agent shall retain the right not to act and shall not be held liable for refusing to act in circumstances that require the delivery to or receipt by the Warrant Agent of documentation unless it has received clear and reasonable documentation which complies with the terms of this Indenture. Such documentation must not require the exercise of any discretion or independent judgement other than as contemplated by hand, mail or any other means, provided that it has complied with the terms of this Indenture in respect of the discharging of its obligations in respect of such certificates. None of the provisions contained in this Indenture shall require the Warrant Agent to expend or to risk its own funds or otherwise to incur financial liability in the performance of any of its duties or in the exercise of any of its rights or powers unless indemnified and funded as aforesaid.

- (2) The obligation of the Warrant Agent to commence or continue any act, action or proceeding for the purpose of enforcing any rights of the Warrant Agent or the Warrantholders hereunder shall be conditional upon the Warrantholders furnishing, when required by notice in writing by the Warrant Agent, sufficient funds to commence or to continue such act, action or proceeding and an indemnity reasonably satisfactory to the Warrant Agent to protect and to hold harmless the Warrant Agent, its officers, directors and employees against the costs, charges and expenses and liabilities to be incurred thereby and any loss and damage it may suffer by reason thereof.
- (3) The Warrant Agent may, before commencing or at any time during the continuance of any such act, action or proceedings, require the Warrantholders, at whose instance it is acting, to deposit with the Warrant Agent the Warrant Certificates held by them, for which the Warrant Agent shall issue receipts.
- (4) Every provision of this Indenture that by its terms relieves the Warrant Agent of liability or entitles it to rely upon any evidence submitted to it is subject to the provisions of Section 11.12.

# 11.3 Evidence, Experts and Advisers

- (1) In addition to the reports, certificates, opinions and evidence required by this Indenture, the Company shall furnish to the Warrant Agent such additional evidence of compliance with any provision hereof, and in such form as may be prescribed by Applicable Legislation or as the Warrant Agent may reasonably require by written notice to the Company.
- (2) The Warrant Agent shall be protected in acting and relying upon any written notice, request, waiver, consent, certificate, receipt, statutory declaration or other paper or document furnished to it, not only as to its due execution and the validity and effectiveness of its provisions, but also as to the truth of and acceptability of any information therein contained which it in good faith believes to be genuine and what it purports to be.
- (3) Proof of the execution of an instrument in writing, including a Warrantholders' Request, by any Warrantholder may be made by the certificate of a notary public, or other officer with similar powers, that the Person signing such instrument acknowledged to him the execution thereof, or by an affidavit of a witness to such execution or in any other manner which the Warrant Agent may consider adequate.
- (4) The Warrant Agent may employ or retain such Counsel, accountants, appraisers or other experts or advisers as it may reasonably require for the purpose of determining and discharging its duties hereunder and shall not be responsible for any misconduct or negligence on the part of such experts or advisors who have been appointed and supervised with due care by the Warrant Agent. The fees of such Counsel and other experts shall be part of the Warrant Agent's fees hereunder. The Warrant Agent shall be fully protected in acting or not acting and relying, in good faith, in accordance with any opinion or instruction of such Counsel. Any remuneration so paid by the Warrant Agent shall be repaid to the Warrant Agent in accordance with Section 7.2.

# 11.4 Action by Warrant Agent to Protect Interest

Subject to the provisions of this Indenture and Applicable Legislation, the Warrant Agent shall have power to institute and to maintain such actions and proceedings as it may consider necessary or expedient to preserve, protect or enforce its interests and the interests of the Warrantholders.

## 11.5 Warrant Agent not Required to Give Security

The Warrant Agent shall not be required to give any bond or security in respect of the execution of the trusts and powers of this Indenture or otherwise.

## 11.6 Protection of Warrant Agent

By way of supplement to the provisions of any law for the time being relating to trustees or warrant agents it is expressly declared and agreed as follows:

- (a) The Warrant Agent shall not be liable for or by reason of any statement of fact or recitals in this indenture or in the Warrant Certificates (except the representations contained in Section 11.8 or in the certificate of the Warrant Agent on the Warrant Certificates) or be required to verify the same, but all such statements or recitals are and shall be deemed to be made by the Company;
- (b) Nothing herein contained shall impose any obligation on the Warrant Agent to see to or to require evidence of the registration or filing (or renewal thereof) of this Indenture or any instrument ancillary or supplemental hereto;
- (c) The Warrant Agent shall not be bound to give notice to any Person or Persons of the execution hereof; and
- (d) The Warrant Agent shall not incur any liability or responsibility whatever or be in any way responsible for the consequence of any breach on the part of the Company of any of the covenants herein contained or of any acts of any Directors, officers, employees, agents or servants of the Company.

### 11.7 Replacement of Warrant Agent; Successor by Merger

- The Warrant Agent may resign and be discharged from all further duties and liabilities hereunder, subject to this subsection 11.7(1), by giving to the Company (1)not less than 30 days prior notice in writing or such shorter prior notice as the Company may accept as sufficient. The Warrantholders by Extraordinary Resolution shall have power at any time to remove the existing Warrant Agent and to appoint a new warrant agent. In the event of the Warrant Agent resigning or being removed as aforesaid or being dissolved, becoming bankrupt, going into liquidation or otherwise becoming incapable of acting hereunder, the Company shall forthwith appoint a new warrant agent unless a new warrant agent has already been appointed by the Warrantholders; failing such appointment by the Company, the retiring Warrant Agent or any Warrantholder may apply to a justice of the Ontario Superior Court of Justice (the "Court"), at the Company's expense, on such notice as such justice may direct, for the appointment of a new warrant agent; but any new warrant agent so appointed by the Company or by the Court shall be subject to removal as aforesaid by the Warrantholders. Any new warrant agent appointed under any provision of this Section 11.7 shall be a company authorized to carry on the business of a transfer agent in the province of Ontario. On any such appointment the new warrant agent shall be vested with the same powers, rights, duties and responsibilities as if it had been originally named herein as Warrant Agent without any further assurance, conveyance, act or deed; but there shall be immediately executed, at the expense of the Company, all such conveyances or other instruments as may, in the opinion of Counsel, be necessary or advisable for the purpose of assuring the same to the new warrant agent, provided that, any resignation or removal of the Warrant Agent and appointment of a successor warrant agent shall not become effective until the successor warrant agent shall have executed an appropriate instrument accepting such appointment and, at the request of the Company, the predecessor Warrant Agent, upon payment of its outstanding remuneration and expenses, shall execute and deliver to the successor warrant agent an appropriate instrument transferring to such successor warrant agent all rights and powers of the Warrant Agent hereunder.
- (2) Upon the appointment of a successor warrant agent, the Company shall promptly notify the Warrantholders thereof in the manner provided for in Section 3.6.
- (3) This Indenture shall enure to the benefit of and be binding upon the parties hereto and their respective successors and assigns. The Company agrees that the Warrant Agent may assign its rights and duties under this Indenture to one of its affiliates without the need for any further notice to, or approval from, the Company.
- (4) Any Warrants certified but not delivered by a predecessor Warrant Agent may be certified by the new or successor warrant agent in the name of the predecessor or the new or successor warrant agent.

### 11.8 Conflict of Interest

- (1) The Warrant Agent represents to the Company that to the best of its knowledge at the time of execution and delivery hereof no material conflict of interest exists in its role as a warrant agent hereunder and agrees that in the event of a material conflict of interest arising hereafter it shall immediately notify the Company of the material conflict of interest with complete details of the conflict and such other information as the Company may reasonably request in connection therewith and, within ninety (90) days after ascertaining that it has such material conflict of interest, either eliminate the same or resign its trusts hereunder to a successor warrant agent approved by the Company and meeting the requirements set forth in subsection 11.7(1). Notwithstanding the foregoing provisions of this subsection 11.8(1), if any such material conflict of interest exists or hereinafter shall exist, the validity and enforceability of this Indenture and the Warrant Certificates shall not be affected in any manner whatsoever by reason thereof.
- (2) Subject to subsection 11.8(1), the Warrant Agent, in its personal or any other capacity, may buy, lend upon and deal in securities of the Company and generally may contract and enter into financial transactions with the Company or any Subsidiary of the Company without being liable to account for any profit made thereby.

#### 11.9 Warrant Agent Not to be Appointed Receiver

The Warrant Agent and any Person related to the Warrant Agent shall not be appointed a receiver, a receiver and manager or liquidator of all or any part of the assets or undertaking of the Company.

### 11.10 Payments by Warrant Agent

The forwarding of a cheque by the Warrant Agent will satisfy and discharge the liability for any amounts due to the extent of the sum or sums represented thereby (plus the amount of any tax deducted or withheld as required by law) unless such cheque is not honoured on presentation; provided that in the event of the non-receipt of such cheque by the payee, or the loss or destruction thereof, the Warrant Agent, upon being furnished with reasonable evidence of such non-receipt, loss or destruction and indemnity reasonably satisfactory to it, will issue to such payee a replacement cheque for the amount of such cheque.

# 11.11 Deposit of Securities

The Warrant Agent shall not be responsible or liable in any manner whatsoever for the sufficiency, correctness, genuineness or validity of any security deposited with

# 11.12 Act, Error, Omission etc.

it.

The Warrant Agent shall not be liable for any error in judgement or for any act done or step taken or omitted by it in good faith, for any mistake, in fact or law, or for anything which it may do or refrain from doing in connection herewith except arising out of its own gross negligence, wilful misconduct or fraud.

### 11.13 Indemnification

Without limiting any protection or indemnity of the Warrant Agent under any other provision hereof, or otherwise at law, the Company hereby agrees to indemnify and hold harmless the Warrant Agent and its directors, officers, agents and employees from and against any and all liabilities, losses, damages, penalties, claims, actions, suits, costs, expenses and disbursements, including reasonable legal or advisor fees and disbursements, of whatever kind and nature which may at any time be imposed on, incurred by or asserted against the Warrant Agent and its directors, officers, agents and employees in connection with the performance of its duties and obligations hereunder, other than such liabilities, losses, damages, penalties, claims, actions, suits, costs, expenses and disbursements arising by reason of gross negligence, wilful misconduct or fraud of the Warrant Agent and its directors, officers, agents and employees. This provision shall survive the resignation or removal of the Warrant Agent, or the termination of this Indenture.

The Warrant Agent shall not be under any obligation to prosecute or defend any action or suit in respect of this Indenture which, in the opinion of its counsel, may involve it in expense or liability, unless the Company shall, so often as required, furnish the Warrant Agent with satisfactory indemnity and funding against such expense or liability.

#### 11.14 Notice

The Warrant Agent shall not be bound to give any notice or do or take any act, action or proceeding by virtue of the powers conferred on it hereby unless and until it shall have been required to so under the terms hereof; nor shall the Warrant Agent be required to take notice of any default hereunder, unless and until notified in writing of such default, which notice shall distinctly specify the default desired to be brought to the attention of the Warrant Agent and in the absence of any such notice the Warrant Agent may for all purposes of this Indenture conclusively assume that no default has been made in the observance or performance of any of the representations, warranties, covenants, agreements or conditions contained herein. Any such notice shall in no way limit any discretion herein given the Warrant Agent to determine whether or not the trustee shall take action with respect to any default.

### 11.15 Reliance by the Warrant Agent

The Warrant Agent may act on the opinion or advice obtained from Counsel to the Warrant Agent and shall, provided it acts in good faith in reliance thereon, not be responsible for any loss occasioned by doing so nor shall it incur any liability or responsibility for determining in good faith not to act upon such opinion or advice. The Warrant Agent may rely, and shall be protected in relying, upon any statement, request, direction or other paper or document believed by it to be genuine and to have been signed, sent or presented by or on behalf of the proper party or parties. The Warrant Agent may assume for the purposes of this Indenture that any address on the register of the Warrantholders is the holder's actual address and is also determinative as to residency of the transferee to whom any Common Shares are to be registered, as shown on the transfer document is the transferee's actual address and is also determinative as to residency of the transferee. The Warrant Agent shall have no obligation to ensure that legends appearing on the Warrant Certificates or Common Shares comply with regulatory requirements or securities laws of any applicable jurisdiction.

#### 11.16 Privacy

The parties to this Warrant Indenture acknowledge that federal and/or provincial legislation that addresses the protection of individuals' personal information (collectively, "**Privacy Laws**.") applies to obligations and activities under this Warrant Indenture. Despite any other provision of this Warrant Indenture, neither party shall take or direct any action that would contravene, or cause the other party to contravene, applicable Privacy Laws. The Company shall, prior to transferring or causing to be transferred personal information to the Warrant Agent, obtain and retain required consents of the relevant individuals to the collection, use and disclosure of their personal information, or shall have determined that such consents either have previously been given upon which the parties can rely or are not required under applicable Privacy Laws. The Warrant Agent shall use commercially best efforts to ensure that its services hereunder comply with applicable Privacy Laws. Specifically, the Warrant Agent agrees: (a) to have a designated chief privacy officer; (b) to maintain policies and procedures to protect personal information and to receive and respond to any privacy complaint or inquiry; (c) to use personal information from the Company or the individual involved; (d) not to sell or otherwise improperly disclose personal information to any third party; and (e) to employ administrative, physical and technological safeguards to reasonably secure and protect personal information against loss, theft or unauthorized access, use or modification.

# 11.17 Anti-Money Laundering

The Warrant Agent shall retain the right not to act and shall not be liable for refusing to act if, due to a lack of information or for any other reason whatsoever, the Warrant Agent, in its sole judgment, acting reasonably, determines that such act might cause it to be in noncompliance with any applicable anti-money laundering, anti-terrorist or economic sanction legislation, regulation or guideline. Further, should the Warrant Agent, in its sole judgment, acting reasonably, determine at any time that its acting under this Indenture has resulted in its being in non-compliance with any applicable anti-money laundering, anti-terrorist or economic sanction legislation, regulation or guideline, then it shall have the right to resign on 10 Business Days' prior written notice sent to the Company provided that (i) the Warrant Agent's written notice shall describe the circumstances of such non-compliance; and (ii) if such circumstances are rectified to the Warrant Agent's satisfaction within such 10-Business Day period, then such resignation shall not be effective.

### 11.18 Force Majeure

Neither party to this Indenture shall be personally liable to the other, or held in breach of this Indenture, if prevented, hindered, or delayed in the performance or observance of any provision contained herein by reason of an act of God, riots, terrorism, acts of war, epidemics, governmental action or judicial order, earthquakes, or any other similar causes (including, but not limited to, mechanical, electronic or communication interruptions, disruptions or failures).

Performance times under this Indenture shall be extended for a period of time equivalent to the time lost because of any delay that is excusable under this Section 11.18.

# ARTICLE XII ACCEPTANCE OF TRUSTS BY WARRANT AGENT

# 12.1 Appointment and Acceptance of Functions

The Company hereby appoints the Warrant Agent under the terms and conditions set forth in this Indenture. The Warrant Agent hereby accepts the terms of this Indenture declared and provided for and agrees to perform the same upon the terms and conditions set forth herein.

# ARTICLE XIII GENERAL

### 13.1 Notice to the Company and the Warrant Agent

- (1) Unless herein otherwise expressly provided, any notice to be given hereunder to the Company and to the Warrant Agent shall be in writing and may be given by mail, or by facsimile (with original copy to follow by mail) or by personal delivery and shall be addressed as follows:
  - (a) if to the Company, to

Titan Medical Inc. 170 University Avenue Suite 1000 Toronto, Ontario M5H 3B3

| Attention: | Stephen Randall |
|------------|-----------------|
| Facsimile: | (647) 348-1512  |

with a copy to:

Borden Ladner Gervais LLP Bay Adelaide Centre, East Tower 22 Adelaide Street West, Suite 3400 Toronto, Ontario M5H 3E3

Attention:Manoj PunditFacsimile:(416) 367-6749

(b) if to the Warrant Agent, to

Computershare Trust Company of Canada 100 University Avenue 11th Floor Toronto, Ontario M5J 2Y1

Attention:General Manager, Corporate Trust DepartmentFacsimile:(416) 981-9777

and shall be deemed to have been given, if delivered or sent by courier, on the date of delivery or, if mailed, on the third (3<sup>rd</sup>) Business Day following the date of the postmark on such notice or, if sent by facsimile, on the date of facsimile transmission. Any delivery made or sent by facsimile on a day other than a Business Day, or after 3:00 p.m. (Toronto time) on a Business Day, shall be deemed to be received on the next following Business Day.

- (2) The Company or the Warrant Agent, as the case may be, may from time to time give notice in the manner provided in subsection 13.1(1) of a change of address which, from the effective date of such notice and until changed by like notice, shall be the address of the Company or the Warrant Agent, as the case may be, for all purposes of this Indenture. A copy of any notice of change of address of the Company given pursuant to this subsection 13.1(2) shall be sent to the principal transfer office of the Warrant Agent in the City of Toronto, Ontario and shall be available for inspection by Warrantholders during normal business hours.
- (3) If, by reason of a strike, lockout or other work stoppage, actual or threatened, involving postal employees, any notice to be given to the Warrant Agent or to the Company hereunder could reasonably be considered unlikely to reach its destination, such notice shall be valid and effective only if it is delivered to an officer of the party to which it is addressed or if it is delivered to such party at the appropriate address provided in subsection 13.1(1) by facsimile or other means of prepaid, transmitted, recorded communication and any such notice delivered in accordance with the foregoing shall be deemed to have been received on the date of delivery to such officer or if delivered by facsimile or other means of prepaid, transmitted, recorded communication, on the first Business Day following the date of the sending of such notice by the Person giving such notice.

# 13.2 Time of the Essence

Time shall be of the essence in this Indenture.

#### 13.3 Counterparts and Formal Date

This Indenture may be executed in several counterparts, each of which when so executed shall be deemed to be an original and such counterparts together shall constitute one and the same instrument and notwithstanding their date of execution shall be deemed to be dated as of the date hereof.

# 13.4 Discretion of Directors

Any matter provided herein to be determined by the Directors shall be determined by the Directors in their sole discretion and any determination so made will be conclusive.

### 13.5 Satisfaction and Discharge of Indenture

Upon the earlier of (a) the date by which there shall have been delivered to the Warrant Agent for exercise or cancellation of all Warrant Certificates theretofore certified hereunder or (b) the expiration of the Exercise Period, this Indenture, except to the extent that Common Shares and certificates therefor have not been issued and delivered hereunder or the Warrant Agent or the Company have not performed any of their obligations hereunder, shall cease to be of further effect and the Warrant Agent, on demand of and at the cost and expense of the Company and upon delivery to the Warrant Agent of a certificate of the Company stating that all conditions precedent to the satisfaction and discharge of this Indenture have been complied with and upon payment to the Warrant Agent of the fees and other remuneration payable to the Warrant Agent, shall execute proper instruments acknowledging satisfaction of and discharging of this Indenture.

### 13.6 Provisions of Indenture and Warrant Certificates for the Sole Benefit of Parties and Warrantholders

Nothing in this Indenture or the Warrant Certificates, expressed or implied, shall give or be construed to give to any Person other than the parties hereto and the holders of the Warrant Certificates any legal or equitable right, remedy or claim under this Indenture, or under any covenant or provision herein contained, all such covenants and provisions being for the sole benefit of the parties hereto and the Warrantholders.

# 13.7 Common Shares or Warrants Owned by the Company or its Subsidiaries Certificates to be Provided

For the purpose of disregarding any Warrants owned legally or beneficially by the Company or any Subsidiary of the Company or any other Affiliate of the Company in Section 9.16, the Company shall provide to the Warrant Agent, from time to time, a certificate of the Company setting forth as at the date of such certificate (a) the names (other than the name of the Company) of the registered holders of Common Shares which, to the knowledge of the Company, are owned by or held for the account of the Company or any Subsidiary of the Company or any other Affiliate of the Company; and (b) the number of Warrants owned legally and beneficially by the Company or any Subsidiary of the Company or any other Affiliate of the Company, and the Warrant Agent in making the determination in Section 9.16 shall be entitled to rely on such certificate.

# [REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]

# IN WITNESS WHEREOF the parties hereto have executed this Indenture as of the date first written above.

# TITAN MEDICAL INC.

| By:    |                            |
|--------|----------------------------|
|        | (signed) "Stephen Randall" |
|        | Stephen Randall            |
| Title: | Chief Financial Officer    |

# COMPUTERSHARE TRUST COMPANY OF CANADA

By:

|        | (signed) "Robert Morrison"   |
|--------|------------------------------|
| Name:  | Robert Morrison              |
| Title: | Corporate Trust Officer      |
|        |                              |
| By:    |                              |
|        | (signed) "Charles Cuschieri" |
| Name:  | Charles Cuschieri            |
| m1.1   |                              |

Title: Associate Trust Officer

# SCHEDULE "A" FORM OF WARRANT CERTIFICATE

[For U.S. Persons, persons in the United States or persons for the account or benefit of a U.S. Person or a person in the United States, the following legend is to be inserted:]

THE SECURITIES REPRESENTED HEREBY AND THE SECURITIES ISSUABLE UPON EXERCISE HEREOF HAVE NOT BEEN AND WILL NOT BE REGISTERED UNDER THE UNITED STATES SECURITIES ACT OF 1933. AS AMENDED (THE "U.S. SECURITIES ACT") OR U.S. STATE SECURITIES LAWS. THESE SECURITIES MAY BE OFFERED, SOLD, PLEDGED OR OTHERWISE TRANSFERRED, DIRECTLY OR INDIRECTLY, ONLY (A) TO TITAN MEDICAL INC. (THE "CORPORATION"), (B) OUTSIDE THE UNITED STATES IN COMPLIANCE WITH RULE 904 OF REGULATION S UNDER THE U.S. SECURITIES ACT AND IN COMPLIANCE WITH APPLICABLE LOCAL LAWS AND REGULATIONS, (C) IN COMPLIANCE WITH THE EXEMPTION FROM THE REGISTRATION REQUIREMENTS UNDER THE U.S. SECURITIES ACT PROVIDED BY (I) RULE 144 OR (II) RULE 144A THEREUNDER. IF AVAILABLE, AND IN EACH CASE IN ACCORDANCE WITH APPLICABLE U.S. STATE SECURITIES LAWS, (D) IN ANOTHER TRANSACTION THAT DOES NOT REQUIRE REGISTRATION UNDER THE U.S. SECURITIES ACT OR ANY APPLICABLE STATE SECURITIES LAWS, OR (E) PURSUANT TO AN EFFECTIVE REGISTRATION STATEMENT UNDER THE U.S. SECURITIES ACT, PROVIDED THAT, IN THE CASE OF TRANSFERS PURSUANT TO (C), (D) OR (E) ABOVE, THE HOLDER HAS, PRIOR TO SUCH TRANSFER, FURNISHED TO THE CORPORATION AN OPINION OF COUNSEL OR OTHER EVIDENCE OF EXEMPTION, IN EITHER CASE, REASONABLY SATISFACTORY TO THE CORPORATION THAT THE TRANSACTION DOES NOT REQUIRE REGISTRATION UNDER THE U.S. SECURITIES ACT OR ANY APPLICABLE STATE SECURITIES LAWS. DELIVERY OF THIS CERTIFICATE MAY NOT CONSTITUTE "GOOD DELIVERY" IN SETTLEMENT OF TRANSACTIONS ON STOCK EXCHANGES IN CANADA.

THIS WARRANT AND THE SECURITIES ISSUABLE UPON EXERCISE HEREOF HAVE NOT BEEN REGISTERED UNDER THE U.S. SECURITIES ACT. THIS WARRANT MAY NOT BE EXERCISED BY OR ON BEHALF OF A U.S. PERSON OR PERSON IN THE UNITED STATES UNLESS THE SHARES ISSUABLE UPON EXERCISE OF THIS WARRANT HAVE BEEN REGISTERED UNDER THE U.S. SECURITIES ACT AND THE APPLICABLE SECURITIES LEGISLATION OF ANY SUCH STATE OR EXEMPTIONS FROM SUCH REGISTRATION REQUIREMENTS ARE AVAILABLE. "UNITED STATES" AND "U.S. PERSON" ARE AS DEFINED BY REGULATION S UNDER THE U.S. SECURITIES ACT.

# TITAN MEDICAL INC.

a corporation existing under the laws of the Province of Ontario and having its principal office at 170 University Avenue, Suite 1000, Toronto, Ontario, M5H 3B3

CUSIP: 88830X272

ISIN: CA88830X2721

NO. •

• WARRANTS

Each warrant entitling the holder to purchase one (1) common share of Titan Medical Inc.

# COMMON SHARE PURCHASE WARRANTS

THIS IS TO CERTIFY THAT for value received • (the "Holder") is the registered holder of the number of warrants (the "Warrants") stated above and is entitled, for each Warrant represented hereby, to purchase one Common Share (subject to adjustment as hereinafter referred to) in the capital of Titan Medical Inc. (the "Company") at any time from the date of issue hereof up to and including 5:00 p.m. (Toronto Time) on June 29, 2022 (the "Expiry Time") by surrendering to Computershare Trust Company of Canada (the "Warrant Agent") at its principal transfer office in Toronto, Ontario this Warrant Certificate with a subscription in the form of the attached Subscription Form duly completed and executed and accompanied by payment of CDN\$0.20 per share, subject to adjustment as hereinafter referred to (the "Exercise Price") by certified cheque, money order or bank draft in lawful money of Canada payable to or to the order of the Company at par in Toronto, Ontario. The Holder may purchase less than the number of Common Shares which the Holder is entitled to purchase on the exercise of the Warrants represented by this Warrant Certificate, in which event a new Warrant Certificate referred to the holder.

The Warrants represented by this Warrant Certificate shall be deemed to have been surrendered and payment by certified cheque, money order or bank draft shall be deemed to have been made, only upon personal delivery thereof or, if sent by post or other means of transmission, upon actual receipt thereof by the Warrant Agent at the office specified above.

This Warrant Certificate represents Warrants issued under the provisions of the Warrant Indenture (which indenture together with all other instruments supplemental or ancillary there is referred to herein as the "Warrant Indenture") dated as of June 29, 2017 between the Company and the Warrant Agent, which contains particulars of the rights of the holders of the Warrants and the Company and of the Warrant Agent in respect thereof and the terms and conditions upon which the Warrants are issued and held, all to the same effect as if the provisions of the Warrant Indenture were herein set forth, to all of which the holder of this Warrant Certificate by acceptance hereof assents. A copy of the Warrant Indenture is available for inspection on the Company's profile on www.sedar.com or the Company shall, on the written request of the Holder and without charge, provide the Holder with a copy of the Warrant Indenture. Capitalized terms used in this Warrant Certificate and not otherwise defined shall have the meanings ascribed thereto in the Warrant Indenture. In the event of any inconsistency between the provisions of the Warrant Indenture (and any amendments thereto and instruments supplemental thereto) and the provisions of this Warrant Certificate, the provisions of the Warrant Indenture shall prevail.

Subject to the Indenture and to any restriction under applicable law or policy of any applicable regulatory body, the Warrants and Warrant Certificates and the rights thereunder shall only be transferable by the registered holder hereof in compliance with the conditions prescribed in the Indenture and the due completion, execution and delivery of a Transfer Form (as attached hereto) in accordance with the terms of the Indenture.

Upon due exercise of the Warrants represented by this Warrant Certificate and payment of the Exercise Price, the Company shall cause to be issued, within five (5) Business Days after the exercise of Warrants represented by this Warrant Certificate, to the person(s) in whose name(s) the Common Shares so subscribed for are to be issued, the number of Common Shares, as fully paid and non-assessable and Certificate(s) representing such Common Shares and such person(s) shall become a holder in respect of such Common Shares with effect from the date of such exercise and upon the due surrender of this Warrant Certificate.

The Warrant Indenture provides for adjustment in the number of Common Shares to be delivered upon exercise of the right of purchase hereby granted and to the Exercise Price in certain events therein set forth.

The Warrants represented hereby and the Common Shares issuable upon the exercise hereof, have not been registered under the United States Securities Act of 1933, as amended, or applicable state securities laws, and the Warrants evidenced by this Warrant Certificate may not be exercised unless the Holder hereof provides the Company with a written certification in the form as set forth on the Subscription Form on the reverse side of this Warrant Certificate.

The Warrants and the Warrant Indenture shall be governed by and performed, construed and enforced in accordance with the laws of the Province of Ontario and the federal laws applicable therein and shall be treated in all respects as Ontario contracts.

Time shall be of the essence hereof and of the Warrant Indenture.

This Warrant Certificate shall not be valid for any purpose until it has been certified by or on behalf of the Warrant Agent for the time being under the Warrant Indenture.

IN WITNESS WHEREOF this Warrant Certificate has been executed on behalf of Titan Medical Inc. as of the \_\_\_\_\_day of June, 2017.

# TITAN MEDICAL INC.

- 4 -

This Warrant Certificate represents Warrants referred to in the Warrant Indenture within mentioned.

Countersigned:

Dated:

# COMPUTERSHARE TRUST COMPANY OF CANADA

\_

By:

TO: Computershare Trust Company of Canada 100 University Avenue 11th Floor, North Tower Toronto, ON M5J 2Y1

Attention: General Manager, Corporate Trust Department

The undersigned holder of the within Warrants hereby irrevocably subscribes for \_\_\_\_\_\_Common Shares of Titan Medical Inc. (the 'Company'') at the Exercise Price referred to in the attached Warrant Certificate on the terms and conditions set forth in such certificate and the Warrant Indenture and encloses herewith a certified cheque, bank draft or money order payable at par in Toronto, Ontario to the order of Titan Medical Inc. in payment in full of the subscription price of the number of Common Shares hereby subscribed for.

The undersigned represents, warrants and certifies as follows (one (only) of the following must be

- [] A. the undersigned holder: (a) at the time of exercise of the Warrants is not in the United States; (b) is not a "U.S. person" as defined in Regulation S under the United States Securities Act of 1933, as amended (the "U.S. Securities Act"), and is not exercising the Warrants on behalf of a "U.S. person"; and (c) has in all other aspects complied with the terms of an "offshore transaction" within the meaning of Regulation S under the U.S. Securities Act;
- [] B. the undersigned holder: (a) purchased Units directly from the Company for its own account or the account of another institutional "accredited investor", as that term is defined in Rule 501(a)(1), (2), (3) or (7) of Regulation D under the U.S. Securities Act (an "Accredited Investor"), pursuant to an executed Form of U.S. Subscription Agreement for Accredited Investors attached to the U.S. Placement Memorandum, for the purchase of Units of the Company; (b) is exercising the Warrants solely for its own account or the account of such other Accredited Investor for whose account such holder exercises sole investment discretion; (c) was an Accredited Investor, both on the date the Units were purchased from the Company and on the date of the exercise of the Warrants; and (d) if the Warrants are being exercised on behalf of another person, the undersigned holder represents, warrants and certifies that such person was the beneficial purchaser for whose account the undersigned holder originally acquired Units upon the exercise of which the Warrants were acquired and was an Accredited Investor, both on the date the Units were purchased from the Company and on the date of the exercise of the Warrants; or
- [] C. the undersigned holder: (a) purchased Units directly from the Company for its own account or the account of another "qualified institutional buyer", within the meaning of Rule 144A under the U.S. Securities Act (a "Qualified Institutional Buyer"), pursuant to an executed Qualified Institutional Buyer Letter for Qualified Institutional Buyers for the purchase of Units of the Company; (b) is exercising the Warrants solely for its own account or the account of such other Qualified Institutional Buyer for whose account such holder exercises sole investment discretion; (c) was a Qualified Institutional Buyer, both on the date the Units were purchased from the Company and on the date of the exercise of the Warrants; and (d) if the Warrants are being exercised on behalf of another person, the undersigned holder originally acquired Units upon the exercise of which the Warrants were acquired and was an Qualified Institutional Buyer, both on the date the Company and on the date of the exercise of the Warrants;

[] D. the undersigned holder has delivered to the Company an opinion of counsel (which will not be sufficient unless it is from counsel of recognized standing and in form and substance satisfactory to the Company) to the effect that an exemption from the registration requirements of the U.S. Securities Act and applicable state securities laws is available for the issuance of the Common Shares issuable upon exercise of the Warrants.

#### Notes:

- (1) Certificates will not be registered or delivered to an address in the United States unless either Box B, C or D above is checked.
- (2) If Box B, C or D is checked, the certificate representing the Common Shares will bear a legend restricting transfer without registration under the United Securities Act of 1933, as amended and applicable state securities laws unless an exemption from registration is available. However, a Qualified Institutional Buyer who checks off Box C above, may enter their Common Shares issued upon exercise of their Warrants into CDS.
- (3) If Box D above is checked, holders are encouraged to consult with the Company in advance to determine that the legal opinion tendered in connection with the exercise will be satisfactory in form and substance to the Company. The undersigned hereby directs that the said Common Shares be issued as follows:

Name(s) in full

Address(es) (including Postal Code) Number(s) of Common Shares

(please print)

DATED this \_\_\_\_\_ day of , \_\_\_\_\_\_ 20 \_\_\_.

Signature Guaranteed

Name of Warrantholder

Name of Authorized Representative

Title or Capacity of Authorized Representative

Signature of Warrantholder or Authorized Representative

(Print Name of Subscriber)

Daytime Phone Number of Warrantholder or Authorized Representative

(Address of Subscriber in full)

[] Please check this box if the securities are to be picked up at the office where the Warrant Certificate is surrendered, failing which the securities will be mailed to the address indicated above.

#### **Instructions:**

The signature of the Warrantholder must be the signature of the registered holder appearing on the face of this Warrant Certificate.

If this Subscription Form is signed by a trustee, executor, administrator, curator, guardian, attorney, officer of a corporation or any person acting in a fiduciary or representative capacity, this Subscription Form must be accompanied by evidence of authority to sign satisfactory to the Warrant Agent and the Company, acting reasonably.

The signature on this Subscription Form must be guaranteed by a major Canadian chartered bank, medallion guaranteed by a recognized medallion signature guarantee program or in any other manner satisfactory to the Warrant Agent. The guarantor must affix a stamp bearing the actual words "Signature Guaranteed". Signature guarantees are not accepted from Treasury Branches or credit unions unless they are members of the Stamp Medallion Program. In the United States, signature guarantees must be done by members of the "Medallion Signature Guarantee Program" only.

If securities are to be issued to a person other than the registered holder, the Subscription Form must be completed and the holder must pay or cause to be paid to the Company all applicable transfer or similar taxes, if any, and the Company shall not be required to issue or deliver certificates evidencing the Common Shares and, if applicable, the Warrants, unless and until such holder shall have paid to the Company the amount of such tax or shall have established to the satisfaction of the Company that such tax has been paid or that no tax is due.

The Warrants will expire at 5:00 p.m. (Toronto Time) on June 29, 2022 and must be exercised before that time, otherwise the same shall expire and be void and of no value.

#### TRANSFER FORM

### ANY TRANSFER OF WARRANTS WILL REQUIRE COMPLIANCE WITH APPLICABLE SECURITIES LEGISLATION. TRANSFERORS AND TRANSFEREES ARE URGED TO CONTACT LEGAL COUNSEL BEFORE EFFECTING ANY SUCH TRANSFER.

FOR VALUE RECEIVED, the undersigned hereby sells, assigns and transfers unto (name)

#### (the "Transferee"),

#### (Residential Address of Transferee)

Warrants of Titan Medical Inc. (the "**Company**") registered in the name of the undersigned on the records of the Company represented by the within Warrant Certificate, and irrevocably appoints as the attorney of the undersigned to transfer the said securities on the books or register of transfer, with full power of substitution.

In the case of a warrant certificate that does not contain a U.S. restrictive legend, the undersigned hereby represents, warrants and certifies that either:

- a) the undersigned transferee (i) is not a U.S. Person (as defined in Rule 902(k) of Regulation S under the United States Securities Act of 1933, as amended, the "U.S. Securities Act"), (ii) at the time of transfer is not within the United States, and (iii) is not acquiring any of the Warrants represented by this Warrant Certificate by or on behalf of any U.S. Person or person within the United States, unless registered under the U.S. Securities Act and any applicable state securities laws or unless an exemption from such registration is available; or
- b) if the proposed transfer is to, or for the account or benefit of a U.S. Person or to a person in the United States, the undersigned hereby represents, warrants and certifies that the transfer of the Warrants is being completed pursuant to an exemption from the registration requirements of the U.S. Securities Act and any applicable state securities laws, in which case the undersigned has furnished to the Corporation and the Warrant Agent an opinion of counsel of recognized standing in form and substance reasonably satisfactory to the Corporation to such effect.

In the case of a warrant certificate that contains a U.S. restrictive legend, the undersigned hereby represents, warrants and certifies that (one (only) of the following must be checked):

[] (A) the transfer is being made only to the Corporation;

- [] (B) the transfer is being made outside the United States in accordance with Rule 904 of Regulation S under the U.S. Securities Act, and in compliance with any applicable local securities laws and regulations and the holder has provided herewith the Declaration for Removal of Legend attached as Schedule "B" to the Indenture or has furnished to the Corporation and the Warrant Agent an opinion of counsel of recognized standing in form and substance reasonably satisfactory to the Corporation that the transfer does not require registration under the U.S. Securities Act or any applicable state securities laws, or
- [] (C) the transfer is being made within the United States or to, or for the account or benefit of, U.S. Persons, in accordance with a transaction that does not require registration under the U.S. Securities Act or any applicable state securities laws and the undersigned has furnished to the Corporation and the Warrant Agent an opinion of counsel of recognized standing in form and substance reasonably satisfactory to the Corporation to such effect.

**DATED** the \_\_\_\_day of \_\_\_\_\_, 20 \_.

Signature Guaranteed (Signature of Holder, to be the same as appears on the face of this Warrant Certificate)

Signature Guaranteed

(Signature of Holder, to be the same as appears on the face of this Warrant Certificate)

Print Name

Address

#### Instructions:

If this Transfer Form is signed by a trustee, executor, administrator, curator, guardian, attorney, officer of a corporation or any person acting in a fiduciary or representative capacity, this Transfer Form must be accompanied by evidence of authority to sign satisfactory to the Warrant Agent and the Company, acting reasonably.

The signature on this Transfer Form must be guaranteed by a major Canadian chartered bank, medallion guaranteed by a recognized medallion signature guarantee program or in any other manner satisfactory to the Warrant Agent. The guarantor must affix a stamp bearing the actual words "Signature Guaranteed". Signature guarantees are not accepted from Treasury Branches or credit unions unless they are members of the Stamp Medallion Program. In the United States, signature guarantees must be done by members of the "Medallion Signature Guarantee Program" only.

#### SCHEDULE "B" FORM OF DECLARATION FOR REMOVAL OF U.S. LEGEND

#### FORM OF DECLARATION FOR REMOVAL OF LEGEND

TO: Computershare Trust Company of Canada as registrar and transfer agent for Common Shares and Warrants of Titan Medical Inc. (the "Corporation")

Dated:

Х

Authorized signatory

Name of Seller (please print)

Name of authorized signatory (please print)

Title of authorized signatory(**please print**)

#### Affirmation By Seller's Broker-Dealer (required for sales in accordance with Section (B)(2)(b) above)

We have read the foregoing representations of our customer, \_\_\_\_\_\_\_(the "Seller") dated \_\_\_\_\_\_, with regard to our sale, for such Seller's account, of the securities of the Corporation described therein, and on behalf of ourselves we certify and affirm that (A) we have no knowledge that the transaction had been prearranged with a buyer in the United States, (B) the transaction was executed on or through the facilities of designated offshore securities market, (C) neither we, nor any person acting on our behalf, engaged in any directed selling efforts in connection with the offer and sale of such securities, and (D) no selling concession, fee or other remuneration is being paid to us in connection with this offer and sale other than the usual and customary broker's commission that would be received by a person executing such transaction as agent. Terms used herein have the meanings given to them by Regulation S under the U.S. Securities Act.

Name of Firm

By:

Authorized officer

Date:

#### Item 1 Name and Address of Company

Titan Medical Inc. (the **"Company"** or **"Titan"**) 170 University Avenue Suite 1000 Toronto, Ontario M5H 3B3

#### Item 2 Date of Material Change

June 29, 2017.

#### Item 3 News Release

The press releases attached as Schedule "A" was disseminated through Marketwired on June 29, 2017 with respect to the material change.

#### Item 4 Summary of Material Change

On June 29, 2017, the Company closed its previously announced short form prospectus offering (the **'Offering**'). The Company sold 48,388,637 units (each, a **'Unit'**) under the Offering at a price of CDN \$0.15 per Unit for gross proceeds of \$7,258,296. Each Unit is comprised of one common share of the Company (a **'Common Share**') and one warrant entitling the holder to purchase one Common Share at a price of CDN \$0.20 until June 29, 2022.

#### Item 5 Full Description of Material Change

5.1 Full Description of Material Change

Please see the press release attached as Schedule "A".

5.2 Disclosure for Restructuring Transactions

Not applicable.

#### Item 6 Reliance on subsection 7.1(2) of National Instrument 51-102

Not applicable.

Item 7 Omitted Information

Not applicable.

#### Item 8 Executive Officer

The following executive officer is knowledgeable about the material changes and may be contacted about this report:

Stephen Randall Chief Financial Officer (416) 548-7522 (ext. 152)

 Email:
 stephen@titanmedicalinc.com

 Website:
 www.titanmedicalinc.com

#### Item 9 Date of Report

June 29, 2017.

Schedule "A"

[See Attached]

## TITAN MEDICAL.

170 University Avenue • Suite 1000 Toronto, Ontario, Canada M5H 3B3 •Tel: 416.548.7522 info@titanmedicalinc.com • www.titanmedicalic.com

#### TITAN MEDICAL INC. ANNOUNCES CLOSING OF PUBLIC OFFERING

Toronto, ON – (Marketwired – June 29, 2017) – Titan Medical Inc. (the "Company") (TSX: TMD) (OTCQB: TITXF) is pleased to announce that it closed its previously announced public offering (the "Offering") earlier today pursuant to an agency agreement (the "Agency Agreement") dated June 26, 2017 between the Company and Bloom Burton Securities Inc. (the "Agent").

The Company sold 48,388,637 units (each, a "**Unit**") under the Offering at a price of CDN \$0.15 per Unit for gross proceeds of CDN \$7,258,296. Each Unit is comprised of one common share of the Company (a "**Common Share**") and one warrant entitling the holder to purchase one Common Share at a price of CDN \$0.20 for a period of five years following today's date (the "**Closing**"). The net proceeds of the Offering will be used to fund continued development work in connection with the Company's SPORT Surgical System, as well as for working capital and other general corporate purposes.

The Common Shares sold under the Offering will be listed and posted for trading on the Toronto Stock Exchange under the symbol TMD at the opening on June 29, 2017.

The Units were qualified for sale by way of a prospectus dated June 26, 2017 (together, the **Prospectus**") filed by the Company in the Provinces of British Columbia, Alberta and Ontario. The Units were also offered for sale in the United States through United States registered broker-dealers appointed by the Agent as sub-agents pursuant to exemptions from the registration requirements of the U.S. Securities Act and applicable state laws.

#### **Related Party Transaction**

An aggregate of 1,445,973 Units were issued to insiders of the Company under the Offering for gross proceeds of 216,896, which included all of the Company's directors and officers. Each insider subscription constitutes a "related party transaction" pursuant to Multilateral Instrument 61 101 – *Protection of Minority Security Holders in Special Transactions* ("**MI 61 101**"). In completing the insider subscriptions, the Company relied on the exemptions from the formal valuation and minority shareholder approval requirements of MI 61 101 set forth in sections 5.5(a) and 5.7(a) of MI 61 101, as the aggregate value of the insider subscription does not exceed 25% of the market capitalization of the Company.

The Company did not file a material change report more than 21 days before the expected closing of the Offering due to the limited time between the launch of the Offering and the Closing.

#### About Titan Medical Inc.

Titan Medical Inc. is a Canadian public company focused on research and development through to the planned commercialization of computer-assisted robotic surgical technologies for application in minimally invasive surgery ("MIS"). The Company is currently developing the SPORT Surgical System, a single-port robotic surgical system. The SPORT Surgical System is comprised of a surgeon-controlled patient cart that includes a 3D high definition vision system and multi-articulating instruments for performing MIS procedures, and a surgeon workstation that provides the surgeon with an advanced ergonomic interface to the patient cart and a 3D endoscopic view inside the patient's body during MIS procedures. With the SPORT Surgical System, the Company aims to pursue a broad set of surgical indications, including general abdominal, gynecologic and urologic procedures.

For more information, please visit the Company's website at www.titanmedicalinc.com.

#### Forward-Looking Statements

This news release contains "forward-looking statements" which reflect the current expectations of management of the Company's future growth, results of operations, performance and business prospects and opportunities. Wherever possible, words such as "may", "would", "could", "will", "anticipate", "believe", "plan", "expect", "intend", "estimate", "potential for" and similar expressions have been used to identify these forward-looking statements. These statements, including statements with respect to the use of the net proceeds of the Offering and the anticipated listing of the Common Shares on the TSX, reflect management's current beliefs with respect to future events and are based on information currently available to management. Forward-looking statements involve significant risks, uncertainties and assumptions. Many factors could cause the Company's actual results, performance or achievements to be materially different from any future results, performance or achievements that may be expressed or implied by such forward-looking statements, including, without limitation, those listed in the "Risk Factors" section of the Company's Annual Information Form dated March 31, 2017 (which may be viewed at www.sedar.com). Should one or more of these risks or uncertainties materialize, or should assumptions underlying the forward looking statements may vary materially from those expressed or implied by the forward-looking statements contained in this news release. These factors should be considered carefully, and prospective investors should not place undue reliance on the forward-looking statements. Although the forward-looking statements contained in the news release are based upon what management currently believes to be reasonable assumptions, the Company cannot assure prospective investors that actual results, performance or achievements will be consistent with these forward-looking statements.

#### **U.S. Securities Law Caution**

The securities described herein have not been, and will not be, registered under the United States Securities Act of 1933, as amended (the "U.S. Securities Act"), or any state securities laws, and accordingly, may not be offered or sold to, or for the account or benefit of, persons in the United States or "U.S. persons," as such term is defined in Regulation S promulgated under the U.S. Securities Act ("U.S. Persons"), except in compliance with the registration requirements of the U.S. Securities Act and applicable state securities requirements or pursuant to exemptions therefrom. This press release does not constitute an offer to sell or a solicitation of an offer to buy any of the Company's securities to, or for the account or benefit of, persons in the United States or U.S. Persons.

Neither TSX nor its Regulation Services Provider (as that term is defined in the policies of the TSX) accepts responsibility for the adequacy or accuracy of this release.

#### CONTACT INFORMATION

LHA Investor Relations Kim Sutton Golodetz (212) 838-3777 kgolodetz@lhai.com or Bruce Voss (310) 691-7100 bvoss@lhai.com

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TITAN MEDICAL.

170 University Avenue • Suite 1000 Toronto, Ontario, Canada M5H 3B3 • Tel: 416.548.7522 info@titanmedicalinc.com • www.titanmedicalic.com

#### TITAN MEDICAL PARTNERS WITH FLORIDA HOSPITAL NICHOLSON CENTER FOR SPORT FEASIBILITY AND VALIDATION STUDIES

TORONTO (July 10, 2017) – Titan Medical Inc. ("Titan" or the "Company") (TSX: TMD) (OTCQB: TITXF) a medical device company focused on the design, development and commercialization of a robotic surgical system for application in minimally invasive surgery (MIS), announces a collaboration with Florida Hospital Nicholson Center for feasibility and validation studies to support Titan's regulatory application for its SPORT Surgical System. These studies are expected to commence in the fourth quarter of 2017 and continue into 2018.

David McNally, President and CEO of Titan Medical, said, "We are delighted to enter into this agreement with Florida Hospital Nicholson Center for continued feasibility and validation studies for the SPORT system. The Florida Hospital Nicholson Center is a world-class, state-of-the-art training and research facility with demonstrated leadership in robotic surgery innovation and training. With an accessible Orlando location, it has one of the country's largest and most experienced medical learning and simulation incubation centers dedicated to advancing next-generation clinical knowledge. Through this strategic alliance, Titan will also benefit from access to many leading multispecialty key opinion leaders and their surgical expertise in fine-tuning the SPORT system during this critical development phase."

"Florida Hospital Nicholson Center is one of three sites contemplated for our validation and feasibility studies. We look forward to engaging the other two sites during the current quarter, with completion of these studies in 2018," added Mr. McNally.

J. Scott Magnuson, MD, Chief Medical Officer of Florida Hospital Nicholson Center, said, "We are excited about helping Titan Medical benefit from the clinical expertise our institution offers in further refining their SPORT surgical system for regulatory submission. Our brand-new, 54,000-square-foot facility is a model for open collaborations to advance practices and standards across the entire spectrum of minimally invasive, laparoscopic, robotic, telemedicine and medical simulation. It is a place where innovators come together to build upon the brilliant work of industry pioneers to achieve breakthroughs that will revolutionize the way we perform surgery. We believe that Titan's single port surgical solution holds promise for continuing the surgical revolution."

#### About Florida Hospital Nicholson Center

For more than a decade, the Florida Hospital Nicholson Center has trained more than 50,000 physicians from around the globe on leading-edge clinical and surgical techniques. Utilizing state-of-the-art surgical suites and labs, plus advanced medical simulation robotics and learning centers, medical professionals can acquire and advance their skills in a highly collaborative surgical learning environment.

#### About Titan Medical Inc.

Titan Medical Inc. is a Canadian public company focused on research and development through to the planned commercialization of computer-assisted robotic surgical technologies for application in minimally invasive surgery ("MIS"). The Company is currently developing the SPORT Surgical System, a single-port robotic surgical system. The SPORT Surgical System is comprised of a surgeon-controlled patient cart that includes a 3D high definition vision system and multi-articulating instruments for performing MIS procedures, and a surgeon workstation that provides the surgeon with an advanced ergonomic interface to the patient cart and a 3D endoscopic view inside the patient's body during MIS procedures. With the SPORT Surgical System, the Company aims to pursue a broad set of surgical indications, including general abdominal, gynecologic and urologic procedures.

For more information, please visit the Company's website at www.titanmedicalinc.com.

#### Forward-Looking Statements

This news release contains "forward-looking statements" which reflect the current expectations of management of the Company's future growth, results of operations, performance and business prospects and opportunities. Wherever possible, words such as "may", "would", "could", "will", "anticipate", "believe", "plan", "expect", "intend", "estimate", "potential for" and similar expressions have been used to identify these forward-looking statements. These statements, including statements with respect to the use of the net proceeds of the Offering and the anticipated listing of the Common Shares on the TSX, reflect management's current beliefs with respect to future events and are based on information currently available to management. Forward-looking statements involve significant risks, uncertainties and assumptions. Many factors could cause the Company's actual results, performance or achievements to be materially different from any future results, performance or achievements that may be expressed or implied by such forward-looking statements, including, without limitation, those listed in the "Risk Factors" section of the Company's Annual Information Form dated March 31, 2017 (which may be viewed at www.sedar.com). Should one or more of these risks or uncertainties materialize, or should assumptions underlying the forward-looking statements may vary materially from those expressed or implied by the forward-looking statements contained in this news release. These factors should be considered carefully, and prospective investors should not place undue reliance on the forward-looking statements. Although the forward-looking statements contained in the news release are based upon what management currently believes to be reasonable assumptions, the Company cannot assure prospective investors that actual results, performance or achievements will be consistent with these forward-looking statements.

Contacts:

LHA Investor Relations Kim Sutton Golodetz (212) 838-3777 kgolodetz@lhai.com or Bruce Voss (310) 691-7100 bvoss@lhai.com

#### NOT FOR DISTRIBUTION TO UNITED STATES NEWSWIRE SERVICES OR FOR DISSEMINATION IN THE UNITED STATES



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#### TITAN MEDICAL INC. ANNOUNCES SECOND CLOSING OF PREVIOUSLY ANNOUNCED PUBLIC OFFERING

Toronto, ON – (Marketwired – July 21, 2017) – Titan Medical Inc. (the "Company") (TSX: TMD) (OTCQB: TITXF) is pleased to announce that it has completed the second closing (the "Second Closing") of its previously announced public offering (the 'Offering") earlier today pursuant to an agency agreement (the "Agency Agreement") dated June 26, 2017 between the Company and Bloom Burton Securities Inc. (the "Agent").

The Agency Agreement provides that the offer and sale of units ("Units") may be completed on one or more dates. The Company completed the first closing of the Offering and issued 48,388,637 Units for gross proceeds of CDN \$7,258,296 on June 29, 2017 and earlier today, it completed the Second Closing of the Offering and issued an additional 11,117,000 Units for gross proceeds of CDN \$1,667,550. The Company has raised combined gross proceeds under the Offering of CDN \$8,925,846. Each Unit was issued at a price of CDN \$0.15 per Unit and is comprised of one common share of the Company (a "Common Share") and one warrant entitling the holder to purchase one Common Share at a price of CDN \$0.20 until expiry on June 29, 2022. The net proceeds of the Offering will be used to fund continued development work in connection with the Company's SPORT Surgical System, as well as for working capital and other general corporate purposes.

The Common Shares sold and issued in connection with the Second Closing will be listed and posted for trading on the Toronto Stock Exchange under the symbol TMD at the opening on July 21, 2017.

The Units were qualified for sale by way of a prospectus dated June 26, 2017 filed by the Company in the Provinces of British Columbia, Alberta and Ontario. The Units were also offered for sale in the United States through United States registered broker-dealers appointed by the Agent as subagents pursuant to exemptions from the registration requirements of the U.S. Securities Act and applicable state laws.

#### About Titan Medical Inc.

Titan Medical Inc. is a Canadian public company focused on research and development through to the planned commercialization of computer-assisted robotic surgical technologies for application in minimally invasive surgery ("MIS"). The Company is currently developing the SPORT Surgical System, a single-port robotic surgical system. The SPORT Surgical System is comprised of a surgeon-controlled patient cart that includes a 3D high definition vision system and multi-articulating instruments for performing MIS procedures, and a surgeon workstation that provides the surgeon with an advanced ergonomic interface to the patient cart and a 3D endoscopic view inside the patient's body during MIS procedures. With the SPORT Surgical System, the Company aims to pursue a broad set of surgical indications, including general abdominal, gynecologic and urologic procedures.

For more information, please visit the Company's website at www.titanmedicalinc.com.

#### Forward-Looking Statements

This news release contains "forward-looking statements" which reflect the current expectations of management of the Company's future growth, results of operations, performance and business prospects and opportunities. Wherever possible, words such as "may", "would", "could", "will", "anticipate", "believe", "plan", "expect", "intend", "estimate", "potential for" and similar expressions have been used to identify these forward-looking statements. These statements, including statements with respect to the use of the net proceeds of the Offering and the anticipated listing of the Common Shares on the TSX, reflect management's current beliefs with respect to future events and are based on information currently available to management. Forward-looking statements involve significant risks, uncertainties and assumptions. Many factors could cause the Company's actual results, performance or achievements to be materially different from any future results, performance or achievements that may be expressed or implied by such forward-looking statements, including, without limitation, those listed in the "Risk Factors" section of the Company's Annual Information Form dated March 31, 2017 (which may be viewed at www.sedar.com). Should one or more of these risks or uncertainties materialize, or should assumptions underlying the forward-looking statements may vary materially from those expressed or implied by the forward-looking statements contained in this news release. These factors should be considered carefully, and prospective investors should not place undue reliance on the forward-looking statements. Although the forward-looking statements contained in the news release are based upon what management currently believes to be reasonable assumptions, the Company cannot assure prospective investors that actual results, performance or achievements will be consistent with these forward-looking statements.

#### **U.S. Securities Law Caution**

The securities described herein have not been, and will not be, registered under the United States Securities Act of 1933, as amended (the "U.S. Securities Act"), or any state securities laws, and accordingly, may not be offered or sold to, or for the account or benefit of, persons in the United States or "U.S. persons," as such term is defined in Regulation S promulgated under the U.S. Securities Act ("U.S. Persons"), except in compliance with the registration requirements of the U.S. Securities Act and applicable state securities requirements or pursuant to exemptions therefrom. This press release does not constitute an offer to sell or a solicitation of an offer to buy any of the Company's securities to, or for the account or benefit of, persons in the United States or U.S. Persons.

Neither TSX nor its Regulation Services Provider (as that term is defined in the policies of the TSX) accepts responsibility for the adequacy or accuracy of this release.

#### CONTACT INFORMATION

LHA Investor Relations Kim Sutton Golodetz (212) 838-3777 kgolodetz@lhai.com or Bruce Voss (310) 691-7100 bvoss@lhai.com

###

#### Item 1 Name and Address of Company

Titan Medical Inc. (the **"Company"** or **"Titan"**) 170 University Avenue Suite 1000 Toronto, Ontario M5H 3B3

#### Item 2 Date of Material Change

July 21, 2017.

#### Item 3 News Release

The press release attached as Schedule "A" was disseminated through Marketwired on July 21, 2017 with respect to the material change.

#### Item 4 Summary of Material Change

On July 21, 2017, the Company completed the second closing of its previously announced short form prospectus offering (the 'Offering'). The Company sold 11,117,000 units (each, a "Unit") under the Offering at a price of CDN \$0.15 per Unit for gross proceeds of CDN \$1,667,550. When combined with the first closing under the Offering, the Company has raised gross proceeds of CDN \$8,925,846. Each Unit is comprised of one common share of the Company (a "Common Share") and one warrant entitling the holder to purchase one Common Share at a price of CDN \$0.20 until June 29, 2022.

# Item 5 Full Description of Material Change 5.1 Full Description of Material Change Please see the press release attached as Schedule "A".

5.2 Disclosure for Restructuring Transactions

Not applicable.

#### Item 6 Reliance on subsection 7.1(2) of National Instrument 51-102

Not applicable.

#### Item 7 Omitted Information

Not applicable.

#### Item 8 Executive Officer

The following executive officer is knowledgeable about the material changes and may be contacted about this report:

Stephen Randall Chief Financial Officer (416) 548-7522 (ext. 152)

 Email:
 stephen@titanmedicalinc.com

 Website:
 www.titanmedicalinc.com

#### Item 9 Date of Report

July 25, 2017.

Schedule "A"

[See Attached]

## TITAN MEDICAL

170 University Avenue • Suite 1000 Toronto, Ontario, Canada M5H 3B3 •Tel: 416.548.7522 info@titanmedicalinc.com • www.titanmedicalic.com

#### TITAN MEDICAL INC. ANNOUNCES SECOND CLOSING OF PREVIOUSLY ANNOUNCED PUBLIC OFFERING

Toronto, ON – (Marketwired – July 21, 2017) – Titan Medical Inc. (the "Company") (TSX: TMD) (OTCQB: TITXF) is pleased to announce that it has completed the second closing (the "Second Closing") of its previously announced public offering (the 'Offering") earlier today pursuant to an agency agreement (the "Agency Agreement") dated June 26, 2017 between the Company and Bloom Burton Securities Inc. (the "Agenct").

The Agency Agreement provides that the offer and sale of units (**'Units**'') may be completed on one or more dates. The Company completed the first closing of the Offering and issued 48,388,637 Units for gross proceeds of CDN \$7,258,296 on June 29, 2017 and earlier today, it completed the Second Closing of the Offering and issued an additional 11,117,000 Units for gross proceeds of CDN \$1,667,550. The Company has raised combined gross proceeds under the Offering of CDN \$8,925,846. Each Unit was issued at a price of CDN \$0.15 per Unit and is comprised of one common share of the Company (a **'Common Share**') and one warrant entitling the holder to purchase one Common Share at a price of CDN \$0.20 until expiry on June 29, 2022. The net proceeds of the Offering will be used to fund continued development work in connection with the Company's SPORT Surgical System, as well as for working capital and other general corporate purposes.

The Common Shares sold and issued in connection with the Second Closing will be listed and posted for trading on the Toronto Stock Exchange under the symbol TMD at the opening on July 21, 2017.

The Units were qualified for sale by way of a prospectus dated June 26, 2017 filed by the Company in the Provinces of British Columbia, Alberta and Ontario. The Units were also offered for sale in the United States through United States registered broker-dealers appointed by the Agent as subagents pursuant to exemptions from the registration requirements of the U.S. Securities Act and applicable state laws.

#### About Titan Medical Inc.

Titan Medical Inc. is a Canadian public company focused on research and development through to the planned commercialization of computer-assisted robotic surgical technologies for application in minimally invasive surgery ("MIS"). The Company is currently developing the SPORT Surgical System, a single-port robotic surgical system. The SPORT Surgical System is comprised of a surgeon-controlled patient cart that includes a 3D high definition vision system and multi-articulating instruments for performing MIS procedures, and a surgeon workstation that provides the surgeon with an advanced ergonomic interface to the patient cart and a 3D endoscopic view inside the patient's body during MIS procedures. With the SPORT Surgical System, the Company aims to pursue a broad set of surgical indications, including general abdominal, gynecologic and urologic procedures.

For more information, please visit the Company's website at www.titanmedicalinc.com.

#### Forward-Looking Statements

This news release contains "forward-looking statements" which reflect the current expectations of management of the Company's future growth, results of operations, performance and business prospects and opportunities. Wherever possible, words such as "may", "would", "could", "will", "anticipate", "believe", "plan", "expect", "intend", "estimate", "potential for" and similar expressions have been used to identify these forward-looking statements. These statements, including statements with respect to the use of the net proceeds of the Offering and the anticipated listing of the Common Shares on the TSX, reflect management's current beliefs with respect to future events and are based on information currently available to management. Forward-looking statements involve significant risks, uncertainties and assumptions. Many factors could cause the Company's actual results, performance or achievements to be materially different from any future results, performance or achievements to be materially different from any future results, performance or model March 31, 2017 (which may be viewed at www.sedar.com). Should one or more of these risks or uncertainties materialize, or should assumptions underlying the forward looking statements may vary materially from those expressed or implied by the forward-looking statements contained in this news release. These factors should be considered carefully, and prospective investors should not place undue reliance on the forward-looking statements. Although the forward-looking statements contained in the news release are based upon what management currently believes to be reasonable assumptions, the Company cannot assure prospective investors that actual results, performance or achievements will be consistent with these forward-looking statements.

#### **U.S. Securities Law Caution**

The securities described herein have not been, and will not be, registered under the United States Securities Act of 1933, as amended (the "U.S. Securities Act"), or any state securities laws, and accordingly, may not be offered or sold to, or for the account or benefit of, persons in the United States or "U.S. persons," as such term is defined in Regulation S promulgated under the U.S. Securities Act ("U.S. Persons"), except in compliance with the registration requirements of the U.S. Securities Act and applicable state securities requirements or pursuant to exemptions therefrom. This press release does not constitute an offer to sell or a solicitation of an offer to buy any of the Company's securities to, or for the account or benefit of, persons in the United States or U.S. Persons.

Neither TSX nor its Regulation Services Provider (as that term is defined in the policies of the TSX) accepts responsibility for the adequacy or accuracy of this release.

#### CONTACT INFORMATION

LHA Investor Relations Kim Sutton Golodetz (212) 838-3777 kgolodetz@lhai.com or Bruce Voss (310) 691-7100 bvoss@lhai.com

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#### NOT FOR DISTRIBUTION TO UNITED STATES NEWSWIRE SERVICES OR FOR DISSEMINATION IN THE UNITED STATES



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#### TITAN MEDICAL ANNOUNCES CLOSING OF PREVIOUSLY ANNOUNCED PUBLIC OFFERING

Toronto, ON – (Marketwired – July 28, 2017) – Titan Medical Inc. (the "Company") (TSX: TMD) (OTCQB: TITXF) is pleased to announce that it has completed its previously announced public offering (the "Offering") pursuant to an agency agreement (the "Agency Agreement") dated June 26, 2017 between the Company and Bloom Burton Securities Inc. (the "Agent").

The Agency Agreement provided that the offer and sale of units (**'Units**'') may be completed on one or more dates. The Company completed a first closing of the Offering on June 29, 2017 and issued 48,388,637 Units for gross proceeds of CDN \$7,258,296 and completed a second closing of the Offering on July 21, 2017 issuing an additional 11,117,000 Units for gross proceeds of CDN \$1,667,550. As a result of the closings, the Company has raised combined gross proceeds under the Offering of CDN \$8,925,846. Each Unit was issued at a price of CDN \$0.15 per Unit and is comprised of one common share of the Company (a **'Common Share**') and one warrant entitling the holder to purchase one Common Share at a price of CDN \$0.20 until expiry on June 29, 2022. The net proceeds of the Offering will be used to fund continued development work in connection with the Company's SPORT Surgical System, as well as for working capital and other general corporate purposes.

The Common Shares sold and issued in connection with the first and second closings were listed and posted for trading on the Toronto Stock Exchange under the symbol TMD at the opening on June 29, 2017 and on July 21, 2017.

The Units were qualified for sale by way of a prospectus dated June 26, 2017 filed by the Company in the Provinces of British Columbia, Alberta and Ontario. The Units were also offered for sale in the United States through United States registered broker-dealers appointed by the Agent as sub-agents pursuant to exemptions from the registration requirements of the U.S. Securities Act and applicable state laws.

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For more information, please visit the Company's website at www.titanmedicalinc.com.

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#### **U.S. Securities Law Caution**

The securities described herein have not been, and will not be, registered under the United States Securities Act of 1933, as amended (the "U.S. Securities Act"), or any state securities laws, and accordingly, may not be offered or sold to, or for the account or benefit of, persons in the United States or "U.S. persons," as such term is defined in Regulation S promulgated under the U.S. Securities Act ("U.S. Persons"), except in compliance with the registration requirements of the U.S. Securities Act and applicable state securities requirements or pursuant to exemptions therefrom. This press release does not constitute an offer to sell or a solicitation of an offer to buy any of the Company's securities to, or for the account or benefit of, persons in the United States or U.S. Persons.

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TITAN MEDICAL.

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#### LONGTAI MEDICAL AGREES TO CONVERT TITAN MEDICAL'S DISTRIBUTORSHIP DEPOSIT TO EQUITY

**TORONTO (August 1, 2017)** – Titan Medical Inc. (TSX: TMD) (OTCQB: TITXF) (**'Titan**' or the **'Company**'), a medical device company focused on the design, development and commercialization of a robotic surgical system for application in minimally invasive surgery (**'MIS**''), announces an agreement with Longtai Medical Inc. (**'Longtai'**) for the conversion of Longtai's US\$2.0 million distributorship deposit to equity (the **'Offering**''). This deposit was made in relation to a letter agreement dated October 30, 2015 providing an exclusivity period to negotiate distribution rights to Titan's robotic surgical system in China and possibly Southeast Asia, and previously was to be refunded in full to Longtai.

Under the terms of the subscription agreement dated July 31, 2017 between Titan and Longtai, Titan will issue to Longtai 16,892,000 units (Units") at a price of CDN\$0.15 per Unit. Each Unit will consist of one common share ("Common Share") and one common share purchase warrant ("Warrant"), with each Warrant exercisable for one Common Share at an exercise price of CDN\$0.20 per Warrant for 60 months from the closing of the Offering.

David McNally, Chief Executive Officer of Titan, said, "We are very pleased to have reached this agreement with Longtai, which conserves our cash and provides them with an equity ownership position in Titan. Longtai will become our largest shareholder and also is a valued strategic partner as we anticipate expansion into China and Southeast Asia following the introduction of SPORT Surgical System in the United States and Europe."

Ms. Feng Ting Ling, Director and Chief Executive Officer of Longtai, said "We are very excited to become Titan's largest shareholder and a long-term strategic partner. We look forward to working with Titan in the future development of the China and Southeast Asia markets."

The closing of the Offering is subject to receipt of all necessary regulatory approvals, including the approval of the Toronto Stock Exchange. All securities issued pursuant to the Offering will be subject to a four-month hold period in accordance with applicable Canadian securities laws.

#### About Titan Medical Inc.

Titan is focused on the design and development through the planned commercialization of a robotic surgical system for use in MIS. The Company's SPORT Surgical System, currently under development, includes a surgeon-controlled robotic platform that features multi-articulating instruments for performing MIS procedures through a single incision. The surgical system also includes a workstation that provides a surgeon with an advanced ergonomic interface to the robotic platform for controlling the instruments and provides a 3D high-definition endoscopic view inside a patient's body. The SPORT Surgical System is designed to enable surgeons to perform a broad set of general abdominal, gynecologic and urologic procedures. For more information, visit the Company's website at www.titanmedicalinc.com.

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#### Item 1 Name and Address of Company

Titan Medical Inc. (the **"Company"** or **"Titan"**) 170 University Avenue Suite 1000 Toronto, Ontario M5H 3B3

#### Item 2 Date of Material Change

July 31, 2017

#### Item 3 News Release

The press release attached as Schedule "A" was disseminated through Marketwired on August 1, 2017 with respect to the material change.

#### Item 4 Summary of Material Change

On July 31, 2017 the Company announced an agreement with Longtai Medical Inc. ('Longtai'') for the conversion of Longtai's US\$2.0 million distributorship deposit to equity (the "Offering").

Under the terms of the subscription agreement dated July 31, 2017 between Titan and Longtai, Titan will issue to Longtai 16,892,000 units (Units") at a price of CDN\$0.15 per Unit. Each Unit will consist of one common share ("Common Share") and one common share purchase warrant ("Warrant"), with each Warrant exercisable for one Common Share at an exercise price of CDN\$0.20 per Warrant for 60 months from the closing of the Offering.

#### Item 5 Full Description of Material Change

5.1 Full Description of Material Change

Please see the press release attached as Schedule "A".

5.2 Disclosure for Restructuring Transactions

Not applicable.

#### Item 6 Reliance on subsection 7.1(2) of National Instrument 51-102

Not applicable.

#### Item 7 Omitted Information

Not applicable.

#### Item 8 Executive Officer

The following executive officer is knowledgeable about the material change and may be contacted about this report:

Stephen Randall Chief Financial Officer (416) 548-7522 (ext. 152)

Email: stephen@titanmedicalinc.com Website: www.titanmedicalinc.com

#### Item 9 Date of Report

August 1, 2017.

Schedule "A"



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The closing of the Offering is subject to receipt of all necessary regulatory approvals, including the approval of the Toronto Stock Exchange. All securities issued pursuant to the Offering will be subject to a four-month hold period in accordance with applicable Canadian securities laws.

#### About Titan Medical Inc.

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#### **Titan Medical Reports Second Quarter 2017 Financial Results**

TORONTO (August 8, 2017) – Titan Medical Inc. (TSX: TMD) (OTCQB: TITXF), a medical device company focused on the design and development of a robotic surgical system for application in minimally invasive surgery (MIS), announces financial results for the three and six months ended June 30, 2017.

All financial results are reported in U.S. dollars, unless otherwise stated. The unaudited condensed interim financial statements and management's discussion and analysis for the period ended June 30, 2017 may be viewed on SEDAR at <u>www.sedar.com</u>.

David McNally, President and CEO of Titan Medical, said, "The second quarter of 2017 was exciting and productive as we took several important steps to advance the development of our SPORT Surgical System (SPORT). Importantly, we completed the initial formative human factor studies. We also began the process of partnering with renowned robotic surgery training centers for feasibility and validation studies. We signed the first of three contemplated agreements with Florida Hospital Nicholson Center in Orlando during the second quarter. These studies will support our regulatory filings and we are on track to confirm the signing of the remaining two facilities during the third quarter. We expect to begin conducting live animal studies in the fourth quarter of 2017."

Mr. McNally continued, "We strengthened our executive team with the recruitment of Curtis Jensen as Vice President of Quality and Regulatory Affairs. In addition, we continued to gain visibility for Titan Medical and for SPORT in the medical device industry. In June we were named the Best Canadian IP Department at the 2017 International Legal IP Alliance Summit Awards. We also completed a two-part public offering and raised gross proceeds of approximately CDN \$6.9 million, which will allow us to begin feasibility and validation studies."

#### Operational highlights for the second quarter of 2017 and recent weeks include:

- On May 17, 2017 Titan announced the completion of initial formative human factor studies for SPORT.
- On April 26, 2017 Titan announced it was granted a U.S. patent related to SPORT robotic instruments.
- On April 3, 2017 Titan announced the hiring of Curtis Jensen as Vice President of Quality and Regulatory Affairs.
- On June 7, 2017 Titan announced it was granted a European patent related to SPORT robotic instruments.
- On June 19, 2017 Titan was named Best Canadian IP Department at the 2017 International Legal IP Alliance Summit & Awards.

- On June 29, 2017 Titan announced the first closing of a public offering of units.
- On July 10, 2017 Titan announced it will partner with Florida Nicholson Center for SPORT feasibility and validation studies.
- On July 21, 2017 Titan announced the second closing of a public offering of units.
- On August 1, 2017 Titan announced Longtai Medical agreed to convert its distributorship deposit to Titan equity.

#### Financial highlights for the second quarter of 2017 and recent weeks include (all comparisons are with the second quarter of 2016, unless otherwise stated):

- Research and development expenses for the second quarter of 2017 were \$2,704,054, compared with \$7,662,739.
- Net and comprehensive loss for the second quarter of 2017 was \$1,865,913, compared with a net and comprehensive loss of \$7,934,874.
- Completed a two-part public offering for gross proceeds of CDN \$6,905,228.
- Cash and cash equivalents as of June 30, 2017 were \$6,838,358, compared with \$4,339,911 as of December 31, 2016.

#### About Titan Medical Inc.

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# TITAN MEDICAL INC. Unaudited Condensed Interim Financial Statements Three and Six Months Ended June 30, 2017 and 2016

(IN UNITED STATES DOLLARS)

|                                           | June 30,<br>2017 | I  | December 31,<br>2016 |
|-------------------------------------------|------------------|----|----------------------|
| ASSETS                                    |                  |    |                      |
| CURRENT                                   |                  |    |                      |
| Cash and cash equivalents                 | \$<br>6,838,358  | \$ | 4,339,911            |
| Amounts receivable                        | 70,513           |    | 176,009              |
| Deposits (Note 6)                         | 2,878,417        |    | 2,016,648            |
| Prepaid expenses                          | <br>38,879       |    | 66,465               |
| Total Current Assets                      | 9,826,167        |    | 6,599,033            |
| Furniture and Equipment                   | 9,721            |    | 9,350                |
| Patent Rights (Note 3)                    | 681,708          |    | 584,113              |
| TOTAL ASSETS                              | \$<br>10,517,596 | \$ | 7,192,496            |
| LIABILITIES                               |                  |    |                      |
| CURRENT                                   |                  |    |                      |
| Accounts payable and accrued liabilities  | \$<br>3,607,774  | \$ | 2,232,201            |
| Warrant liability (Note 2(b) and 5)       | 4,097,440        |    | 2,365,691            |
| Other Liabilities and Charges (Note 4(a)) | 2,000,000        |    | 2,000,000            |
| TOTAL LIABILTIES                          | 9,705,214        |    | 6,597,892            |
| SHAREHOLDERS' EQUITY                      |                  |    |                      |
| Share Capital (Note 4(a))                 | 119,304,976      |    | 112,742,810          |
| Contributed Surplus                       | 4,331,114        |    | 3,707,432            |
| Warrants (Note 4 (b))                     | 741,917          |    | 855,800              |
| Deficit                                   | (123,565,625)    |    | (116,711,438)        |
| Total Equity                              | 812,382          |    | 594,604              |
| TOTAL LIABILITIES & EQUITY                | \$<br>10,517,596 | \$ | 7,192,496            |
| Committee and a Quete Q                   |                  |    |                      |

Commitments (Note 6)

See accompanying notes to financial statements

Approved on behalf of the Board:

Martin Bernholtz Director and Chairman David McNally President and Chief Executive Officer

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# TITAN MEDICAL INC. Unaudited Condensed Interim Statements of Shareholders' Equity and Deficit For the Periods ended June 30, 2017 and 2016 (In U.S. Dollars)

|                                            | Share Capital<br>Number | 5  | Share Capital<br>Amount | (  | Contributed<br>Surplus | Warrants        | Deficit                 | Total<br>Equity   |
|--------------------------------------------|-------------------------|----|-------------------------|----|------------------------|-----------------|-------------------------|-------------------|
| Balance - December 31, 2015                | 116,457,486             | \$ | 86,083,419              | \$ | 2,849,061              | \$<br>4,044,192 | \$ (93,387,942)         | \$<br>(411,270)   |
| Issued pursuant to agency agreement        | 30,730,788              |    | 18,333,646              |    |                        |                 |                         | 18,333,646        |
| Issued private placement                   | 130,839                 |    | 100,000                 |    |                        |                 |                         | 100,000           |
| Share issue expense                        |                         |    | (1,728,365)             |    |                        |                 |                         | (1,728,365)       |
| Warrants exercised during the period       | 70,000                  |    | 63,288                  |    |                        |                 |                         | 63,288            |
| Warrants expired during the period         |                         |    | 1,877,941               |    |                        | (1,877,941)     |                         | -                 |
| Options exercised during the period        | 9,000                   |    | 7,432                   |    | (3.825)                |                 |                         | 3,607             |
| Stock based compensation vested            |                         |    |                         |    | 223,041                |                 |                         | 223,041           |
| Net and Comprehensive loss for the period  |                         |    |                         |    |                        |                 | (19,655,268)            | (19,655,268)      |
| Balance – June 30, 2016                    | 147,398,113             | \$ | 104,737,361             | \$ | 3,068,277              | \$<br>2,166,251 | \$ (113,043,210)        | \$<br>(3,071,321) |
| Balance - December 31, 2016                | 166,511,446             | \$ | 112,742,810             | \$ | 3,707,432              | \$<br>855,800   | \$ (116,711,438)        | \$<br>594,604     |
| Issued pursuant to agency agreement        | 70,223,372              |    | 11,218,894              |    |                        |                 |                         | 11,218,894        |
| Warrant liability issued during the period |                         |    | (4,086,084)             |    |                        |                 |                         | (4,086,084)       |
| Share issue expense                        |                         |    | (824,807)               |    |                        |                 |                         | (824,807)         |
| Warrants exercised during the period       |                         |    | 140,280                 |    |                        |                 |                         | 140,280           |
| Warrants expired during the period         |                         |    | 113,883                 |    |                        | (113,883)       |                         | -                 |
| Stock based compensation                   |                         |    |                         |    | 623,682                |                 |                         | 623,682           |
| Comprehensive loss for the period          |                         |    |                         |    |                        |                 | (6,854,187)             | (6,854,187)       |
| Balance –June 30, 2017                     | 236,734,818             | \$ | 119,304,976             | \$ | 4,331,114              | \$<br>741,917   | <u>\$ (123,565,625)</u> | \$<br>812,382     |

See accompanying notes to financial statements.

2

|                                                                     | Three Months<br>Ended June<br>30, 2017 | ed June Ended June |             | Three Months<br>Ended June<br>30, 2016 |               | Six Months<br>Ended June<br>30, 2016 |             |
|---------------------------------------------------------------------|----------------------------------------|--------------------|-------------|----------------------------------------|---------------|--------------------------------------|-------------|
|                                                                     |                                        |                    |             |                                        |               |                                      |             |
| REVENUE                                                             | \$-                                    | \$                 | -           | \$                                     | -             | \$                                   | -           |
| EXPENSES                                                            |                                        |                    |             |                                        |               |                                      |             |
| Amortization                                                        | 4,191                                  |                    | 10,785      |                                        | 6,273         |                                      | 12,095      |
| Consulting fees                                                     | 107,615                                |                    | 270,433     |                                        | 108,000       |                                      | 259,857     |
| Stock based compensation (Note 4(b))                                | 380,279                                |                    | 623,682     |                                        | 107,059       |                                      | 223,041     |
| Insurance                                                           | 5,533                                  |                    | 13,464      |                                        | 5,441         |                                      | 10,883      |
| Management salaries and fees                                        | 620,929                                |                    | 1,246,756   |                                        | 408,041       |                                      | 809,974     |
| Marketing and investor relations                                    | 104,139                                |                    | 165,836     |                                        | 129,448       |                                      | 260,242     |
| Office and general                                                  | 71,200                                 |                    | 167,501     |                                        | 56,759        |                                      | 148,133     |
| Professional fees                                                   | 151,637                                |                    | 296,650     |                                        | 102,419       |                                      | 196,478     |
| Rent                                                                | 24,717                                 |                    | 50,254      |                                        | 24,351        |                                      | 45,915      |
| Research and development                                            | 2,704,054                              |                    | 5,650,377   |                                        | 7,662,739     |                                      | 18,098,418  |
| Travel                                                              | 77,181                                 |                    | 157,376     |                                        | 133,860       |                                      | 262,760     |
| Foreign exchange (gain) loss                                        | 95,380                                 |                    | 80,564      |                                        | (9,160)       |                                      | 330,571     |
|                                                                     | 4,346,855                              |                    | 8,733,678   |                                        | 8,735,230     |                                      | 20,658,367  |
| FINANCE INCOME (COST)                                               |                                        |                    |             |                                        |               |                                      |             |
| Interest                                                            | 3,275                                  |                    | 5,408       |                                        | 2,493         |                                      | 4,267       |
| Gain on change in fair value of warrant liability (Note 2(b) and 5) | 2,834,469                              |                    | 2,372,473   |                                        | 800,371       |                                      | 1,346,614   |
| Warrant liability issue cost                                        | (356,802)                              |                    | (498,390)   |                                        | (2,508)       |                                      | (347,782)   |
|                                                                     | 2,480,942                              |                    | 1,879,491   |                                        | 808,356       |                                      | 1,003,099   |
| NET AND COMPREHENSIVE LOSS FOR THE PERIOD                           | \$ 1,865,913                           | \$                 | 6,854,187   | \$                                     | 7,934,874     | \$                                   | 19,655,268  |
| BASIC AND DILUTED LOSS PER SHARE                                    | \$ (0.01)                              | \$                 | (0.04)      | \$                                     | (0.05)        | \$                                   | (0.15)      |
| WEIGHTED AVERAGE NUMBER OF COMMON SHARES, Basic and Dilute          | d 188,734,898                          |                    | 179,463,612 |                                        | 147,050,96101 |                                      | 135,348,132 |

See accompanying notes to financial statements

# TITAN MEDICAL INC. Unaudited Condensed Interim Statements of Cash Flows For the Three and Six Months ended June 30, 2017 and 2016 (In U.S. Dollars)

|                                                          | Three Months<br>Ended June<br>30, 2017 | Six Months<br>Ended June<br>30, 2017 | Three Months<br>Ended June<br>30, 2016 | Six Months<br>Ended June<br>30, 2016 |
|----------------------------------------------------------|----------------------------------------|--------------------------------------|----------------------------------------|--------------------------------------|
| OPERATING ACTIVITIES                                     |                                        |                                      |                                        |                                      |
| Net loss for the period                                  | \$<br>(1,865,913)                      | \$<br>(6,854,187)                    | \$<br>(7,934,874)                      | \$<br>(19,655,268)                   |
| Items not involving cash:                                |                                        |                                      |                                        |                                      |
| Amortization                                             | 4,191                                  | 10,785                               | 6,273                                  | 12,095                               |
| Stock based compensation                                 | 380,279                                | 623,682                              | 107,059                                | 223,041                              |
| Warrant liability – fair value adjustment                | (2,834,469)                            | (2,372,473)                          | (800,371)                              | (1,346,614)                          |
| Warrant liability – foreign exchange adjustment          | 77,270                                 | 51,190                               | (19,702)                               | 229,214                              |
| Changes in non-cash working capital items:               |                                        |                                      |                                        |                                      |
| Amounts receivable, prepaid expenses and deposits        | (859,839)                              | (728,687)                            | (1,874,581)                            | (2,840,257)                          |
| Accounts payable and accrued liabilities                 | 1,377,769                              | 1,375,573                            | 3,632,875                              | (1,423,171)                          |
| Cash used in operating activities                        | (3,720,712)                            | (7,894,117)                          | (6,883,321)                            | (24,800,960)                         |
| FINANCING ACTIVITIES                                     |                                        |                                      |                                        |                                      |
| Net proceeds from issuance of common shares and warrants | 5,334,062                              | 10,501,315                           | 1,709,178                              | 20,527,668                           |
| Cash provided by financing activities                    | 5,334,062                              | 10,501,315                           | 1,709,178                              | 20,527,668                           |
| INVESTING ACTIVITIES                                     |                                        |                                      |                                        |                                      |
| (Increase)/ decrease in furniture and equipment          | (3,427)                                | (3,427)                              | -                                      | (10,088)                             |
| Costs of Patents                                         | (78,318)                               | (105,324)                            | (30,147)                               | (106,402)                            |
| Cash used in investing activities                        | (81,745)                               | (108,751)                            | (30,147)                               | (116,490)                            |
| INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS         | 1,531,605                              | 2,498,447                            | (5,204,290)                            | (4,389,782)                          |
| CASH AND CASH EQUIVALENTS, BEGINNING OF PERIOD           | <br>5,306,753                          | 4,339,911                            | 12,012,081                             | 11,197,573                           |
| CASH AND CASH EQUIVALENTS, END OF PERIOD                 | \$<br>6,838,358                        | \$<br>6,838,358                      | \$<br>6,807,791                        | \$<br>6,807,791                      |
| CASH AND CASH EQUIVALENTS COMPRISE:                      |                                        |                                      |                                        |                                      |
| Cash                                                     | \$<br>663,225                          | \$<br>663,225                        | \$<br>2,904,839                        | \$<br>2,904,839                      |
| Money Market Fund                                        | <br>6,175,133                          | 6,175,133                            | 3,902,952                              | 3,902,952                            |
|                                                          | \$<br>6,838,358                        | \$<br>6,838,358                      | \$<br>6,807,791                        | \$<br>6,807,791                      |

See accompanying notes to financial statements

4

# 1. <u>DESCRIPTION OF BUSINESS</u>

### Nature of Operations:

The Company's business continues to be in the research and development stage and is focused on the continued research and development of the next generation surgical robotic platform. In the near term, the Company will continue efforts toward a clinical grade platform to be used for clinical trials and satisfaction of appropriate regulatory requirements. Upon receipt of regulatory approvals, the Company will be in a position to transition from the research and development stage to the commercialization stage. The completion of these latter stages will be subject to the Company receiving additional funding in the future.

The Company is incorporated in Ontario, Canada in accordance with the Business Corporations Act.

The address of the Company's corporate office and its principal place of business is Toronto, Canada.

#### **Basis of Preparation**:

## (a) Statement of Compliance

These condensed interim financial statements for the three and six months ending June 30, 2017 have been prepared in accordance with International Accounting Standard 34, Interim Financial Reporting ("IAS 34").

These condensed interim financial statements should be read in conjunction with the Company's 2016 annual financial statements which have been prepared in accordance with International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board ("IASB").

The condensed interim financial statements have been prepared using accounting policies consistent with those used in the Company's 2016 annual financial statements as well as any amendments, revisions and new IFRS, which have been issued subsequently and are appropriate to the Company.

The condensed interim financial statements were authorized for issue by the Board of Directors on August 8, 2017.

#### (b) Basis of Measurement

These condensed interim financial statements have been prepared on the historical cost basis except for the revaluation of the warrant liability, which is measured at fair value.

## (c) Functional and Presentation Currency

These condensed interim financial statements are presented in United States dollars ("U.S."), which is the Company's functional and presentation currency.

# 2. <u>SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES</u>

## (a) Use of Estimates and Judgements

The preparation of financial statements in conformity with IAS 34, Interim Financial Reporting requires management to make estimates and assumptions that affect the reported amount of assets and liabilities and disclosure of provisions at the date of the condensed interim financial statements and the reported amount of expenses during the period. Financial statement items subject to significant judgement include, the measurement of stock based compensation and the fair value estimate of the initial measurement of new warrant liabilities and remeasurement of unlisted warrant liabilities. While management believes that the estimates and assumptions are reasonable, actual results may differ.

In assessing whether the going concern assumption is appropriate, management takes into account all available information about the future, which is at least, but not limited to twelve months from the end of the reporting period. The Company expects that approximately US \$31 million in incremental funding, in addition to the proceeds of the offering completed June 29, 2017, will be required for the next 12 months, to maintain it's currently anticipated pace of development. The ability of the Company to arrange such funding will depend in part on prevailing capital market conditions and the business success of the Company. There can be no assurance that the Company will be successful in its efforts to arrange additional financing on terms satisfactory to the Company. If additional funding is not available, the pace of the Company's product development plan may be reduced. However, based on internal forecasts, Management believes that the Company has sufficient funds to meet its obligations under a reduced development plan, if necessary, for the ensuing twelve months.

## Fair Value

The Black-Scholes model used by the Company to determine fair values of stock options and warrants was developed for use in estimating the fair value of the stock options and warrants. This model requires the input of highly subjective assumptions including future stock price volatility and expected time until exercise. Changes in the subjective input assumptions can materially affect the fair value estimate.

## (b) Warrant Liability

In accordance with IAS 32, because the exercise prices of new warrants issued, as well as the warrants issued from the exercise of broker warrants, are not a fixed amount as they are denominated in a currency (Canadian dollar) other than the Company's functional currency (U.S. dollar), the warrants are accounted for as a derivative financial liability. EachWarrant Liability is initially measured at fair value and subsequent changes in fair value are recorded through Net and Comprehensive Loss for the period. The fair value of these warrants was determined initially using a comparable warrant quoted in an active market, adjusted for differences in the terms of the warrant. At June 30, 2017, the Warrant Liability of listed warrants, was adjusted to fair value measured at the market price of the listed warrants. The March 2019, March 2021, and June 2022 unlisted warrants were adjusted to fair value using the Black-Scholes formula.

## (c) Fair Value Measurement

The accounting guidance for fair value measurements prioritizes the inputs used in measuring fair value into the following hierarchy:

Level 1 – Quoted prices (unadjusted) in active markets for identical assets or liabilities;

Level 2 – Inputs other than quoted prices included within Level 1 that are directly or indirectly observable:

Level 3 – Unobservable inputs in which little or no market activity exists, therefore requiring an entity to develop its own assumptions about the assumptions that market participants would use in pricing.

The fair value of our listed and unlisted Warrant liability is initially based on level 2 (significant observable inputs) and at June 30, 2017 is based on level 1, quoted prices (unadjusted) for listed warrants and level 2 for unlisted warrants.

# 3. <u>PATENT RIGHTS</u>

| Cost                             |            |
|----------------------------------|------------|
| Balance at December 31, 2016     | \$ 776,717 |
| Additions                        | 105,324    |
| Balance at June 30, 2017         | \$ 882,041 |
|                                  |            |
| Amortization & Impairment Losses |            |
| Balance at December 31, 2016     | \$ 192,604 |
| Amortization                     | 7,729      |
| Balance at June 30, 2017         | \$ 200,333 |
|                                  |            |
| Net Book Value                   |            |
| At December 31, 2016             | \$ 584,113 |
| At June 30, 2017                 | \$ 681,708 |
|                                  |            |

# 4. <u>SHARE CAPITAL</u>

| a) | Authorized: | unlimited number of common shares, no par value |
|----|-------------|-------------------------------------------------|
|    | Issued:     | 236,734,818 (December 31, 2016: 166,511,446)    |

Exercise prices of units, warrants and options are presented in Canadian currency as they are exercisable in Canadian dollars.

On June 29, 2017 Titan completed an offering of securities made pursuant to an agency agreement dated June 26, 2017 between the Company and Bloom Burton Securities Inc. (the "Agent"). The Company sold 48,388,637 Units under the Offering at a price of CDN\$0.15 per Unit for gross proceeds of approximately \$5,576,357 (\$4,857,152 net of closing cost including cash commission of \$382,689 paid in accordance with the terms of the agency agreement). Each Unit consisted of one Common Share of the Company and one Common Share purchase warrant, each warrant entitles the holder thereof to acquire one Common Share of the Company at an exercise price of CDN \$0.20 and expiring June 29, 2022. The warrants were valued at \$2,788,274 based on the value of comparable warrants at the time and the balance of \$2,788,083 was allocated to common shares.

Pursuant to the agency agreement, in addition to the cash commission paid to the Agent, broker warrants were issued to the Agent which entitle the holder to purchase 3,285,986 Common Shares at a price of CDN \$0.15 per share prior to expiry on June 29, 2019.

On March 16, 2017 Titan completed an offering of securities made pursuant to an agency agreement dated March 10, 2017 between the Company and Bloom Burton Securities Inc. (the "Agent"). The Company sold 21,467,200 Units under the Offering at a price of CDN\$0.35 per Unit for gross proceeds of approximately \$5,642,537 (\$5,039,114 net of closing cost including cash commission of \$394,316 paid in accordance with the terms of the agency agreement). Each Unit consisted of one Common Share of the Company and (i) one-half of one Common Share purchase warrant, each whole warrant entitling the holder thereof to acquire one COmmon Share of the Company at an exercise price of CDN \$0.40 and expiring March 16, 2019, and (ii) one-half of one Common Share purchase warrant, each whole warrant entitling the holder thereof to acquire on Common Share of the Company at an exercise price of CDN \$0.50 and expiring March 16, 2021. The warrants were valued at \$1,297,810 based on the value of comparable warrants at the time and the balance of \$4,344,727 was allocated to common shares.

Pursuant to the agency agreement, in addition to the cash commission paid to the Agent, broker warrants were issued to the Agent which entitle the holder to purchase 1,500,155 Common Shares at a price of CDN \$0.35 per share prior to expiry on March 16, 2019.

On October 27, 2016 the over-allotment option to the Company's September 20, 2016 offering of 17,083,333 Units at a price of CDN \$0.60 was partially exercised and the Company sold an additional 2,030,000 Units at the Offering Price of CDN \$0.60 for additional gross proceed of \$909,846 (\$845,181 net of closing costs including cash commission of \$63,689 paid in accordance with the terms of the agency agreement). Each Unit comprised of one common share of Titan and one warrant. Each whole warrant entitles its holder to purchase one additional common share of Titan for CDN \$0.75 and will expire October 27, 2021. The warrants were valued at \$121,313 based on the market value at the time and the balance of \$788,533 was allocated to common shares.

Pursuant to the agency agreement, in addition to the cash commission paid to the Agent, broker warrants were issued to purchase 142,100 Units. Each broker warrant entitles the holder thereof to acquire one common share of the Company at the price of CDN \$0.60 for a period of 24 months following the closing date.

On September 20, 2016 Titan completed an offering of securities pursuant to an agency agreement dated September 13, 2016 between the Company, and Bloom Burton & Co. Limited and Echelon Wealth Partners Inc. (the "Agents"). The Company sold 17,083,333 Units under the Offering at a price of CDN \$0.60 per Unit for gross proceeds of \$7,749,000 (\$6,951,987 net of closing costs including cash commission of \$528,668 paid in accordance with the terms of the agency agreement). Each Unit comprised of one common share of Titan and one warrant. Each whole warrant entitles its holder to purchase one additional common share of Titan for CDN \$0.75 and will expire September 20, 2021. The warrants were valued at \$1,162,350 using a comparable warrant quoted in an active market, adjusted for differences in the terms of warrant and the balance of \$6,586,650 was allocated to common shares.

Pursuant to the agency agreement, in addition to the cash commission paid to the Agent, broker warrants were issued to purchase 1,165,494 Units. Each broker warrant entitles the holder thereof to acquire one Unit of the Company at the price of CDN\$0.60 for a period of 24 months following the closing date. Each Unit consists one common share of the Company and one common share purchase warrant. Each purchase warrant entitles the holder thereof to acquire one Share of the Company at an exercise price of CDN \$0.75 which expire September 20, 2021.

On April 14, 2016 the over-allotment option to the Company's March 31, 2016 offering of 15,054,940 Units at a price of CDN \$1.00 per Unit was exercised in full and the Company sold an additional 2,258,241 Units at the Offering Price of CDN \$1.00 for additional gross proceeds of \$1,759,396 (\$1,633,407 net of closing costs including commission of \$123,158 paid in accordance with the terms of the agency agreement). Each Unit comprised of one common share of Titan and one warrant. Each whole warrant entitles its holder to purchase one additional common share of Titan for CDN\$1.20 and will expire April 14, 2021. The warrants were valued at \$290,300 using a comparable warrant quoted in an active market, adjusted for differences in the terms of warrant and the balance of \$1,469,096 was allocated to common shares.

Pursuant to the agency agreement, in addition to the cash commission paid to the Agent, broker warrants were issued to purchase 158,076 Units. Each broker warrant entitles the holder thereof to acquire one Unit of the Company at the price of CDN\$1.00 for a period of 24 months following the closing date. Each Unit consists one common share of the Company and one common share purchase warrant. Each purchase warrant entitles the holder thereof to acquire one Share of the Company at an exercise price of CDN \$1.20 which expire April 14, 2021.

On March 31, 2016 Titan completed an offering of securities pursuant to an agency agreement dated March 24, 2016 between the Company and Bloom Burton & Co. Limited (the "Agent"). The Company sold 15,054,940 Units under the Offering price of CDN\$1.00 per Unit for gross proceeds of approximately \$11,607,359 (\$10,571,919 net of closing costs including cash commission of \$796,324 paid in accordance with the terms of the agency agreement). Each Unit comprised of one common share of Titan and one warrant. Each whole warrant entitles its holder to purchase one additional common share of Titan for CDN\$1.20 and will expire March 31, 2021. The warrants were valued at \$1,741,104 using a comparable warrant quoted in an active market, adjusted for differences in the terms of warrant and the balance of \$9,866,255 was allocated to common shares.

Pursuant to the agency agreement, in addition to the cash commission paid to the Agent, broker warrants were issued to purchase 1,032,845 Units. Each broker warrant entitles the holder thereof to acquire one Unit of the Company at the price of CDN\$1.00 for a period of 24 months following the closing date. Each Unit consists of one common share of the Company and one common share purchase warrant. Each purchase warrant entitles the holder thereof to acquire one Share of the Company at an exercise price of CDN \$1.20 which expire March 31, 2021.

On February 23, 2016 the over-allotment option in connection with the February 12, 2016 completed public offering of 11,670,818 Units had been exercised in full. The company sold an additional 1,746,789 Units at the offering price of CDN\$0.90 per Unit for gross proceeds to Titan of approximately \$1,139,937 (\$1,029,605 net of closing costs including cash commission of \$79,796 paid in accordance with the terms of the agency agreement). Each Unit consists of one common share of the Company and one common share purchase warrant. Each whole warrant entitles the holder thereof to acquire one Share of the Company at an exercise price of CDN \$1.00 which expire February 23, 2021. The warrants were valued at \$215,321 using a comparable warrant quoted in an active market, adjusted for differences in the terms of warrant and the balance of \$924,616 was allocated to common shares.

On February 12, 2016 Titan completed an offering of securitiesmade pursuant to an agency agreement dated February 9, 2016 between the Company and Bloom Burton & Co. Limited (the "Agent"). The Company sold 11,670,818 Units under the Offering at a price of CDN \$0.90 per Unit for gross proceeds of approximately \$7,592,101 (\$6,844,046 net of closing costs including cash commission of \$516,622 paid in accordance with the terms of the agency agreement). Each Unit consists of one common share of the Company and one common share purchase warrant. Each whole warrant entitles the holder thereof to acquire one Share of the Company at an exercise price of CDN \$1.00 which expire February 12, 2021. The warrants were valued at \$1,518,420 using a comparable warrant quoted in an active market, adjusted for differences in the terms of warrant and the balance of \$6,073,681 was allocated to common shares.

Pursuant to the agency agreement, in addition to the cash commission paid to the Agent, broker warrants were issued to purchase 916,443 Units. Each broker warrant entitles the holder thereof to acquire one Unit of the Company at the price of CDN\$0.90 for a period of 24 months following the closing date. Each Unit consists of one common share of the Company and one common share purchase warrant. Each purchase warrant entitles the holder to acquire one common share of the Company at an exercise price of CDN\$1.00 for a period of 60 months from the date of closing.

On November 23, 2015 Titan closed a private placement of 4,290,280 common shares of Titan at a subscription price of CDN \$1.23 per common share for gross proceeds of \$4,000,000 with Longtai Medical Inc. Under the Agreement Titan has granted to Longtai exclusive rights to negotiate for an exclusive marketing, sales and distribution agreement for Titan's SPORT Surgical System in the Asia Pacific region for a period of 183 days. Longtai has paid to Titan \$2,000,000 as a deposit toward the Distributorship Agreement, which shall be repaid to Longtai in the event that the agreement is not entered into within the 183 day period. On August 24, 2016 the parties had agreed to modify their previous three month extension to monthly progress reviews. Longtai will concurrently with the signing of the Distributorship Agreement is signed and the second \$4,000,000 private placement is completed, Titan \$1,400,000 of the Distributorship Deposit and repay \$600,000 to Longtai. On April 28, 2017 the Company announced that it had terminated negotiations with Longtai Medical Inc. for the marketing, sales and Distribution Agreement and the Company will repay the \$2,000,000 deposit to Longtai Medical Inc.

## b) Warrants, Stock Options and Compensation Options

Subject to shareholder approval, Titan has reserved and set aside up to 10% of the issued and outstanding shares of Titan for granting of options to employees, officers, consultants and advisors. At, June 30, 2017, 7,444,550 common shares (December 31, 2016: 9,448,895) are available for issue in accordance with the Company's stock option plan. The terms of these options are determined by the Board of Directors. A summary of the status of the Company's outstanding stock options as of June 30, 2017 and June 30, 2016 and changes during the periods ended on those dates is presented in the following table:

|                    | Six Mor<br>June            |                                             | Six Mon<br>June            |                                            |
|--------------------|----------------------------|---------------------------------------------|----------------------------|--------------------------------------------|
|                    | Number of<br>stock options | veighted-average<br>exercise price<br>(CDN) | Number of<br>stock options | eighted-average<br>exercise price<br>(CDN) |
|                    |                            |                                             |                            |                                            |
| Balance, beginning | 7,202,250                  | \$<br>1.10                                  | 2,897,763                  | \$<br>1.20                                 |
| Granted            | 10,325,572                 | \$<br>0.55                                  | 644,292                    | \$<br>1.08                                 |
| Exercised          | -                          | \$<br>0.00                                  | (9,000)                    | \$<br>0.56                                 |
| Expired/Forfeited  | (1,298,890)                | \$<br>1.16                                  | (80,000)                   | \$<br>1.27                                 |
| Balance, ending    | 16,228,932                 | \$<br>0.74                                  | 3,453,055                  | \$<br>1.26                                 |

The weighted-average remaining contractual life and weighted-average exercise price of options outstanding and of options exercisable as at June 30, 2017 are as follows:

| Weighted-<br>price (CDN)         remaining<br>contractual life<br>(vers)         Number<br>exercisable         exerce<br>exercisable           \$0.43         1,500,000         \$0.43         6.80         -         -           \$0.50         500,000         \$0.50         6.61         -         -           \$0.50         663,368         \$0.56         1.09         663,368         -         -           \$0.57         8,325,572         \$0.57         6.55         -         -         -           \$0.83         49,591         \$0.83         0.72         49,591         50,900         -           \$0.96         305,107         \$0.96         1.47         305,107         51.00         4.15         988,495 |                                                  | <b>Options Ex</b> |                               | standing         | Options Out |        |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|-------------------|-------------------------------|------------------|-------------|--------|
| \$0.50         500,000         \$0.50         6.61         -           \$0.56         663,368         \$0.56         1.09         663,368           \$0.57         8,325,572         \$0.57         6.55         -           \$0.83         49,591         \$0.83         0.72         49,591           \$0.96         305,107         \$0.96         1.47         305,107           \$1.00         3,171,558         \$1.00         4.15         988,495                                                                                                                                                                                                                                                                          | eighted-<br>average<br><u>ise price</u><br>(CDN) |                   | remaining<br>contractual life | average exercise |             |        |
| \$0.50         500,000         \$0.50         6.61         -           \$0.56         663,368         \$0.56         1.09         663,368           \$0.57         8,325,572         \$0.57         6.55         -           \$0.83         49,591         \$0.83         0.72         49,591           \$0.96         305,107         \$0.96         1.47         305,107           \$1.00         3,171,558         \$1.00         4.15         988,495                                                                                                                                                                                                                                                                          | \$0.43                                           | -                 | 6.80                          | \$0.43           | 1,500,000   | \$0.43 |
| \$0.57         8,325,572         \$0.57         6.55         -           \$0.83         49,591         \$0.83         0.72         49,591           \$0.96         305,107         \$0.96         1.47         305,107           \$1.00         3,171,558         \$1.00         4.15         988,495                                                                                                                                                                                                                                                                                                                                                                                                                              | \$0.50                                           | -                 | 6.61                          | \$0.50           |             | \$0.50 |
| \$0.83         49,591         \$0.83         0.72         49,591           \$0.96         305,107         \$0.96         1.47         305,107           \$1.00         3,171,558         \$1.00         4.15         988,495                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | \$0.56                                           | 663,368           | 1.09                          | \$0.56           | 663,368     | \$0.56 |
| \$0.96         305,107         \$0.96         1.47         305,107           \$1.00         3,171,558         \$1.00         4.15         988,495                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | \$0.57                                           | -                 | 6.55                          | \$0.57           | 8,325,572   | \$0.57 |
| \$1.00 3,171,558 \$1.00 4.15 988,495                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | \$0.83                                           | 49,591            | 0.72                          | \$0.83           | 49,591      | \$0.83 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | \$0.96                                           | 305,107           | 1.47                          | \$0.96           | 305,107     | \$0.96 |
| \$1.02 183.587 \$1.02 3.48 109.729                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | \$1.00                                           | 988,495           | 4.15                          | \$1.00           | 3,171,558   | \$1.00 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | \$1.02                                           | 109,729           | 3.48                          | \$1.02           | 183,587     | \$1.02 |
| \$1.08 564,292 \$1.08 3.58 564,292                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | \$1.08                                           | 564,292           | 3.58                          | \$1.08           | 564,292     | \$1.08 |
| \$1.39 19,746 \$1.39 2.46 19,746                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | \$1.39                                           | 19,746            | 2.46                          | \$1.39           | 19,746      | \$1.39 |
| \$1.51 16,796 \$1.51 3.12 16,796                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | \$1.51                                           | 16,796            | 3.12                          | \$1.51           | 16,796      | \$1.51 |
| \$1.72 461,139 \$1.72 2.95 335,254                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | \$1.72                                           | 335,254           | 2.95                          | \$1.72           | 461,139     | \$1.72 |
| \$1.76 106,096 \$1.76 1.68 106,096                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | \$1.76                                           | 106,096           | 1.68                          | \$1.76           | 106,096     | \$1.76 |
| \$1.94 <u>362.080</u> \$1.94 1.89 <u>362.080</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | \$1.94                                           | 362,080           | 1.89                          | \$1.94           | 362,080     | \$1.94 |
| <u>16,228,932</u> \$0.74 <u>3,520,554</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | \$1.12                                           | 3,520,554         |                               | \$0.74           | 16,228,932  |        |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 10                                               |                   |                               |                  |             |        |

Options are granted to Directors, Officers, Employees and Consultants at various times. Options are to be settled by physical delivery of shares.

Stock options granted to non-employees, officers or directors are valued using the Black-Scholes pricing model, rather than on the basis of the fair value of the services received.

The Company does on occasion use the services of consultants. Options granted in these situations are valued on the basis of fair value of the services received.

| Grant date/Person entitled                                    | Grant date/Person entitled Number of Options Vesting Conditions |                                                                                       | Contractual life of Options |
|---------------------------------------------------------------|-----------------------------------------------------------------|---------------------------------------------------------------------------------------|-----------------------------|
| January 27, 2016, option grants to Consultants and Employees  | 644,292                                                         | immediately                                                                           | 5 years                     |
| August 24, 2016, options granted to Directors and Consultants | 1,129,206                                                       | immediately                                                                           | 5 years                     |
| August 24, 2016, options granted to Employees                 | 2,886,619                                                       | Vest as to 1/3 of the total number of Options granted, every year from Option Date    | 5 years                     |
| January 17, 2017, option grants to Employees                  | 8,325,572                                                       | Vest as to 1/4 of the total number of Options<br>granted, every year from Option Date | 7 years                     |
| February 7, 2017, option grants to Employees                  | 500,000                                                         | Vest as to 1/4 of the total number of Options<br>granted, every year from Option Date | 7 years                     |
| April 17, 2017, option grants to Employees                    | 1,500,000                                                       | Vest as to 1/4 of the total number of Options<br>granted, every year from Option Date | 7 years                     |

# Inputs for Measurement of Grant Date Fair Values

The grant date fair value of all share based payment plans was measured based on the Black-Scholes formula. Expected volatility was estimated by considering historic average share price volatility. The inputs used in the measurement of fair values at grant date of the share based option plan are as follows:

Directors, Management, Employees, Medical Advisors and Consultants

|                                 |                 | 2016    |
|---------------------------------|-----------------|---------|
| Fair Value at grant date (CDN)  | \$0.19 - \$0.32 | \$0.52  |
| Share price at grant date (CDN) | \$0.34 - \$0.54 | \$1.08  |
| Exercise price (CDN)            | \$0.43 - \$0.57 | \$1.08  |
| Expected Volatility             | 82.4% - 82.8%   | 73.34%  |
| Option Life                     | 4 years         | 3 years |
| Expected dividends              | nil             | nil     |
| Risk-free interest rate         | 0.89% - 1.01%   | 0.44%   |
| (based on government bonds)     |                 |         |

The following is a summary of outstanding warrants included in Shareholder's Equity as at June 30, 2017 and June 30, 2016 and changes during the periods then ended.

|                              | Six Months<br>Ended June<br>30, 2017 |               | Six Months<br>Ended June<br>30, 2016 |                 |
|------------------------------|--------------------------------------|---------------|--------------------------------------|-----------------|
|                              | Number of<br>Warrants                | Amount        | Number of<br>Warrants                | Amount          |
| Opening Balance              | 5,651,434                            | \$<br>855,800 | 14,257,434                           | \$<br>4,044,192 |
| Expired during the period    |                                      |               |                                      |                 |
| Exercise Price of CDN\$2.00  |                                      |               |                                      |                 |
| Expiry June 21, 2016         |                                      |               | (5,121,500)                          | (1,877,941)     |
| Expired during the period    |                                      |               |                                      |                 |
| Exercise Price of CDN\$1.776 |                                      |               |                                      |                 |
| Expiry March 14, 2017        | (390,729)                            | (113,883)     |                                      |                 |
| Ending Balance               | 5,260,705                            | \$<br>741,917 | 9,135,934                            | \$<br>2,166,251 |
|                              |                                      |               |                                      | 12              |

# 5. <u>WARRANT LIABILTY</u>

|                                               | Six Months<br>Ended June<br>30, 2017 |                 | Year Ended<br>December<br>31, 2016 |                 |
|-----------------------------------------------|--------------------------------------|-----------------|------------------------------------|-----------------|
|                                               | Number of<br>Warrants                | Amount          | Number of<br>Warrants              | Amount          |
| Balance, beginning                            | 77,451,086                           | \$<br>2,365,691 | 27,676,965                         | \$<br>2,137,751 |
| Issue of warrants expiring, February 12, 2021 |                                      |                 | 11,670,818                         | 1,518,420       |
| Issue of warrants expiring, February 23, 2021 |                                      |                 | 1,746,789                          | 215,321         |
| Issue of warrants expiring, March 31, 2021    |                                      |                 | 15,054,940                         | 1,741,104       |
| Issue of warrants expiring April 14, 2021     |                                      |                 | 2,258,241                          | 290,300         |
| Issue of warrants expiring September 20, 2021 |                                      |                 | 17,083,333                         | 1,162,350       |
| Issue of warrant expiring October 27, 2017    |                                      |                 | 2,030,000                          | 121,313         |
| Issue of warrants expiring March 16, 2019     | 10,733,600                           | 572,326         |                                    |                 |
| Issue of warrants expiring March 16, 2021     | 10,733,600                           | 725,484         |                                    |                 |
| Issue of warrants expiring June 29, 2022      | 48,388,637                           | 2,788,274       |                                    |                 |
| Warrants exercised during the period          | (367,535)                            | (33,052)        | (70,000)                           | (9,654)         |
| Warrants expired during the period            | (20,664,770)                         | -               |                                    |                 |
| Foreign exchange adjustment                   | -                                    | 51,190          | -                                  | 138,799         |
| Fair value adjustment                         | -                                    | (2,372,473)     | -                                  | (4,950,013)     |
| Balance, ending                               | 126,274,618                          | \$<br>4,097,440 | 77,451,086                         | \$<br>2,365,691 |

In addition to the warrants listed above, at June 30, 2017, the Company has issued and outstanding, 8,201,099 broker unit warrants expiring between February 23, 2018 and June 29, 2019.

# 6. <u>COMMITMENTS</u>

As a part of its program of research and development around the SPORT Surgical System, the Company has outsourced certain aspects of the design and development to a U.S. based technology and development company. At June 30, 2017, \$942,680 in purchase orders remains outstanding. The Company also has on deposit with this same U.S. supplier \$2,704,908 to be applied against future invoices. In addition we maintain a deposit of \$173,509 with a second U.S based development company.

The Company has entered into a number of licensing agreements with suppliers and Universities that will require payments to be made to them, in future years, based on the achievement, by the Company, of certain milestones which could total up to \$825,000. Subsequently, following commercialization, royalty payments will be required, based on a percentage of annual net sales of the licensed product, in the range of 4% to 6% per royalty agreement.

## 7. <u>RELATED PARTY TRANSACTIONS</u>

During the six months ended June 30, 2017, transactions between the Company and directors, officers and other related parties were related to compensation matters in the normal course of operations and are measured at the exchange amount, which is the amount of consideration established and agreed to by the related parties.

Compensation to the Executive Officers amounted to \$405,187 and \$756,531 for the three and six months ended June 30, 2017 compared to \$245,249 and \$494,983 for the same period in 2016.

Officers and Directors of the Company control approximately 1.47% of the Company.

|                           | June 30,Ma2017   |       | December 31, 2016 |      |
|---------------------------|------------------|-------|-------------------|------|
|                           | Number of Shares | %     | Number of Shares  | %    |
| John Barker               | 450,632          | 0.19  | 250,632           | 0.15 |
| Martin Bernholtz          | 2,571,500        | 1.09  | 1,571,500         | 0.94 |
| John Hargrove             | -                | -     | 298,200           | 0.18 |
| David McNally             | 50,000           | 0.02  | -                 | -    |
| Stephen Randall           | 357,307          | 0.15  | 102,800           | 0.06 |
| Reiza Rayman              | -                | -     | 4,357,117         | 2.62 |
| John Schellhorn           | 8,826            | 0.004 | -                 | -    |
| Bruce Wolff               | 35,299           | 0.01  | 17,552            | 0.01 |
| TOTAL                     | 3,473,564        | 1.47  | 6,597,801         | 3.96 |
| Common Shares Outstanding | 236,734,818      | 100%  | 166,511,446       | 100% |

## 8. <u>SEGMENTED REPORTING</u>

The Company operates in a single reportable operating segment - the research and development of SPORT, the next generation of surgical robotic platform.

# 9. <u>SUBSEQUENT EVENTS</u>

On July 21, 2017 Titan completed a second closing of an offering of securities made pursuant to an agency agreement dated June 26, 2017 between the Company and Bloom Burton Securities Inc. (the "Agent"). The Company sold an additional 11,117,000 Units under the Offering at a price of CDN. \$0.15 per Unit for Gross proceeds of approximately \$ 1,328,871 (\$1,197,780 net of closing costs including cash commission of \$93,021 paid in accordance with the terms of the agency agreement). Each Unit consisted of one Common Share of the Company and one Common Share purchase warrant, each warrant entitles the holder thereof to acquire one Common Share of the Company at an exercise price of CDN \$0.20 and expiring June 29, 2022. The warrants were valued at \$575,844 based on the value of comparable warrants at the time and the balance of \$753,027 was allocated to common shares.

Pursuant to the agency agreement, in addition to the cash commission paid to the Agent, broker warrants were issued to the Agent which entitle the holder to purchase 778,190 Common Shares at a price of CDN \$0.15 per share prior to expiry on June 29, 2019.

On July 31, 2017 Titan completed a Subscription Agreement with Longtai Medical Inc. to convert the \$2.0 million distribution deposit, received in November 2015, to equity. Under the terms of the Subscription Agreement, Titan will issue to Longtai, 16,892,000 Units at a price of CDN \$0.15 per Unit. Each Unit will consist of one Common Share of the Company and one Common Share purchase warrant, each warrant entitles the holder thereof to acquire one Common Share of the Company at an exercise price of CDN \$0.20 and expires July 31, 2022

### TITAN MEDICAL INC.

#### MANAGEMENT'S DISCUSSION AND ANALYSIS

## FOR THE THREE AND SIX MONTHS ENDED JUNE 30, 2017

#### (IN UNITED STATES DOLLARS)

#### This Management's Discussion and Analysis ("MD&A") is dated August 8, 2017.

This MD&A provides a review of the performance of Titan Medical Inc. ("Titan" or the "Company") and should be read in conjunction with its unaudited condensed interim financial statements for the three and six months ended June 30, 2017 (and the notes thereto) (the "Financial Statements"). The Financial Statements have been prepared in accordance with International Accounting Standards 34, Interim Financial Reporting ("IAS 34").

## Internal Control over Financial Reporting

During the three and six months ended June 30, 2017, no changes were made to the Company's internal control over financial reporting that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

#### Forward-Looking Statements

This discussion includes certain statements that may be deemed "forward-looking statements". All statements in this discussion other than statements of historical facts that address future events, developments or transactions that the Company expects, are forward-looking statements. These forward-looking statements are made as of the date of this MD&A. Forward-looking statements are frequently, but not always, identified by words such as "expects", "expected", "expectation", "anticipates", "believes", "intends", "estimates", "predicts", "potential", "targeted", "plans", "possible", "milestones", "objectives" and similar expressions, or statements that events, conditions or results "will", "may", "could", or "should" occur or be achieved. Forward-looking statements that appear in this MD&A include: the Company is committed to developing its robotic surgical system with the objective of substantially improving upon minimally invasive surgery; the Company aims to pursue a broad set of surgical indications for the SPORT Surgical System, including general abdominal, gynecologic, urologic and colorectal procedures; the SPORT Surgical System is being developed with the goal of inserting the interactive multi-articulating instruments and the 3D high definition vision system into the patient's body cavity through a single incision; the Company continues to explore in-licensing opportunities for technologies that may be used in conjunction with the Company's robotic surgical system; the Company anticipates expanding its patent portfolio by filing patent applications as it progresses in the development of robotic surgical technologies and by licensing suitable technologies; the Company's current plan is to focus on the development and commercialization of the SPORT Surgical System at estimated incremental costs and according to the timeline as set forth in the table below; the Company intends to utilize a direct sales force and/or distribution partner(s) to initiate marketing the SPORT Surgical System to hospitals; the Co

Although the Company believes the expectations expressed in such forward-looking statements are based on reasonable assumptions, such statements are not guarantees of future performance and actual results or developments may differ materially from those in the forward-looking statements. Forward-looking statements are statements about the future and are inherently uncertain, and actual results of the Company or other future events or conditions may differ materially from those reflected in the forward-looking statements due to a variety of risks, uncertainties and other factors, such as current global financial conditions, dependence on key personnel, conflicts of interest, obtaining of or cost of additional financing, strategic alliances, uncertainty as to product development and commercialization milestones, results of operations, competition, technological advancements, rapidly changing markets, uncertain market, uncertain acceptance of the Company's technology or intellectual property, infringement of intellectual property rights, scope and cost of insurance and uninsured risks, risks associated with the Company entering into additional long-term contractual arrangements, ability to license other intellectual property rights, government regulation, changes in government policy, changes in accounting and tax rules, regulatory inquiries, requirements and approvals, contingent liabilities, manufacturing and product defects, history of losses, stock price volatility, future share sales, limited operating history, fluctuating financial results and currency fluctuations. Please also refer to the risk factors set forth starting on page 16 of the Company's Annual Information Form for the 2016 fiscal year, available on SEDAR at www.sedar.com, which are expressly incorporated by reference into the MD&A.

There may be other factors that cause actions, events or results not to be as anticipated, estimated or intended. Other than as specifically required by law, the Company undertakes no obligation to update any forward-looking statement to reflect events or circumstances after the date on which such statement is made, or to reflect the occurrence of unanticipated events, whether as a result of new information, future events or results or otherwise. Investors are cautioned that any such statements are not guarantees of future performance and that actual results or developments may differ materially from those projected in the forward-looking statements. Accordingly, investors should not place undue reliance on forward-looking statements.

## History and Business

The Company is, and since July 28, 2008 has been, incorporated under the Business Corporations Act (Ontario).

The address of the Company's corporate office and its principal place of business is 170 University Avenue, Suite 1000, Toronto, Ontario, Canada M5H 3B3.

The Company was formed by way of amalgamation under the *Business Corporations Act* (Ontario) on July 28, 2008. Titan does not have any subsidiaries. The Company is committed to developing its robotic surgical system for use in connection with minimally invasive surgery (surgery without large incisions). From inception, the Company has focused on research and development toward its robotic surgical technology and building its intellectual property portfolio, trade secrets and scientific and technical knowledge base.

## **Overall Performance**

The Company's business is focused on the research and development of computer-assisted robotic surgical technologies for application in minimally invasive surgery ("MIS"). The Company is currently developing the SPORT Surgical System, a single-port robotic surgical system. The SPORT Surgical System comprises a surgeon-controlled robotic platform, a patient cart that includes a 3D high definition vision system, and multi-articulating instruments for allowing a surgeon to perform MIS procedures, and a surgeon workstation that provides the surgeon with an advanced ergonomic interface to the robotic platform and a 3D view of inside a patient's body. With the SPORT Surgical System, the Company aims to pursue a broad set of surgical indications, including general abdominal, gynecologic, urologic and colorectal procedures.

Development of the SPORT Surgical System has proceeded in response to "voice of customer" feedback and consultation with medical technology development firms engaged by the Company and the Company's Surgeon Advisory Board (the "Surgeon Advisory Board") comprised of industry-leading surgeons. This has allowed the Company to design a robotic surgical system that would not only include the traditional advantages of robotic surgery - 3D stereoscopic imaging and restoration of instinctive control, but also new and enhanced features including an advanced surgeon workstation that provides an ergonomically-friendly surgeon user interface and a robotic platform with improved instrument dexterity. The advanced ergonomic design of the workstation also includes customized master controllers, a second display for delivering ancillary information to the surgeon and elbow supports instead of forearm supports to provide an overall more comfortable working position. The surgical system is designed to adapt to the surgeon instead of having the surgeon adapt to the system.

The Company has completed research and early development of the major components of the SPORT Surgical System including multi-articulating instruments with multiple degrees of freedom of movement, a custom designed 3D high definition vision system capable of motorized pan and tilt and surgeon controls that allow the user to control the instruments through movements of the surgeon controllers.

The SPORT Surgical System's robotic platform is being developed with the goal of providing the interactive multi-articulating instruments and the 3D high definition vision system for insertion into a patient's body cavity through a single incision. The design of the robotic platform includes a camera insertion tube of approximately 19mm in diameter that is capable of being inserted into the patient's body cavity through a skin incision of approximately 25mm. The camera insertion tube ("CIT") includes a portion incorporating the 3D high definition vision system inside a camera module at a distal end. The CIT provides the surgeon and OR team with an image during preparation of the patient and once positioned generally at the surgical site, the CIT is configured to deploy into a working configuration wherein the 3D high definition vision system and interactive multi-articulating instruments can be controlled by a surgeon seated at the workstation. The multi-articulating, snake-like instruments are designed to couple with removable and sterile single patient use robotic tools that would provide first use quality for each case and eliminate the reprocessing of tools. The use of reposable (re-usable for a specific number of uses) robotic instruments and single patient use tools allows more use cases for each robotic instrument thus reducing the cost per case. The robotic platform is also designed to include a mast, a boom and wheels for optimal configurability for a variety of surgical indications and the ability to be maneuvered around the operating room and surgical centers where applicable.

As part of the development of the SPORT Surgical System, the Company is also developing a comprehensive training curriculum and post-training assessment for surgeons and surgical teams.

The Company continuously evaluates its technologies under development for intellectual property protection through a combination of trade secrets and patent application filings. As of June 30, 2017, the Company had ownership or exclusive rights to 15 patents and 40 patent applications. The Company anticipates expanding its patent portfolio by filing patent applications as it progresses in the development of robotic surgical technologies and by licensing suitable technologies. In 2012, the Company entered into an exclusive license agreement with Columbia University for a robotic surgical technology for use in single-port surgery. The Company has exclusive license rights for the development and commercialization of the licensed technology, helping form the basis of the SPORT Surgical System.

As part of its development and commercialization efforts, the Company has established certain milestones that it uses to assess its progress towards developing commercially viable robotic surgical technologies. These milestones relate to technology and design advancements as well as conducting the work necessary for completing and supporting regulatory submissions. To assess progress, the Company regularly tests and evaluates its technology. If such tests and evaluations indicate technical defects or failure to meet cost or performance goals, the Company's commercialization schedule could be delayed and potential purchasers of its initial commercial systems may decline to purchase them or may choose to purchase alternative technologies.

Among other things, the future success of the Company is substantially dependent on continuing its research and development program, including the ongoing support of any outsourced research and development suppliers.

In addition to being capital intensive, research and development activities relating to the sophisticated technologies that the Company is developing are inherently uncertain as to future success and the achievement of desired results. If delays or problems occur during the Company's ongoing research and development activities, important financial and human resources may need to be diverted toward resolving such delays or problems. Further, there is material risk that the Company's research and development activities may not result in a functional, commercially viable product or one that is approved by regulatory authorities. See "Risk Factors".

The current prototype units incorporate previous design and engineering work completed on the SPORT Surgical System and will be used for pre-clinical live animal and human cadaver studies. The live animal and human cadaver studies are expected to provide information in support of anticipated regulatory submissions to the United States Food and Drug Administration ("FDA") for marketing clearance, and European regulatory authorities for the CE Mark.

The Company achieved its stated milestones for the first and second quarters of 2017, including the finalization of user requirements for its first generation robotic surgical system during the first quarter, and selection of strategic facilities for pre-clinical studies in the US and Europe during the second quarter. The first location was announced in July, and the other two facilities are expected to be announced by mid-August of 2017. Concurrently, during the first and second quarter of 2017, testing and evaluation of the performance of subsystems of existing engineering verification prototype units was conducted, initial formative human factors studies were completed, and design changes were initiated based on subsystem performance and human factors evaluation. Also during the first half of 2017, the Company received notice of issuance of additional US and European patents.

## **Discussion of Operations**

The Company incurred a net and comprehensive loss of \$1,865,913 and \$6,854,187 during the three and six months ended June 30, 2017, compared with a net and comprehensive loss of \$7,934,874 and \$19,655,268 for the three and six months ended June 30, 2016. This decrease in net and comprehensive loss for the period is attributed primarily to the reduced research and development activities in 2017 when compared to 2016. In addition, foreign exchange (gain) or loss in the three and six months ended June 30, 2017, was \$95,380 and \$80,564, compared to a gain of \$9,160 and a loss of \$330,571 for the comparable periods in 2016. This change in foreign exchange gain and loss is largely attributed to the change in foreign exchange on warrant liabilities of \$104,540 and \$250,007 for the three and six month periods, respectively.

During the three and six months ended June 30, 2017, corporate efforts were ongoing related to furthering strategic product development and manufacturing relationships, carrying on efforts to secure the Company's intellectual property through the patent and licensing process, and continuing the development of the Company's robotic surgical system.

Research and development expenditures (all of which were expensed in the period) for the three and six months ended June 30, 2017 and June 30, 2016, respectively, were as follows:

| Research and Development Expenditures                      | Three Months<br>Ended<br>June 30,<br>2017 | Six Months<br>Ended<br>June 30,<br>2016 | Three Months<br>Ended<br>June 30, 2016 | Six Months<br>Ended<br>June 30, 2016 |
|------------------------------------------------------------|-------------------------------------------|-----------------------------------------|----------------------------------------|--------------------------------------|
| Intellectual property development<br>License and royalties | \$ 5,000                                  | \$ 10,000<br>5,000                      | \$5,000<br>0                           | \$10,000<br>76,000                   |
| Product development                                        | 2,699,054                                 | 5,635,377                               | 7,657,739                              | 18,012,418                           |
| Total                                                      | \$ 2,704,054                              | \$5,650,377                             | \$7,662,739                            | \$18,098,418                         |

Research and development expenditures decreased in the six months ended June 30, 2017 compared to the same period in 2016. This decrease was primarily due to a reduction in available funding in 2017 when compared to 2016 and as a result research and development activity was reduced or postponed.

Excluding foreign exchange, general and administrative expenses for the three and six months ended June 30, 2017, were \$1,547,421 and \$3,002,737 compared to \$1,081,651 and \$2,229,378 for the comparable period in 2016.

The gain attributed to the change in fair value of warrants for the three and six months ended June 30, 2017 was \$2,834,469 and \$2,372,473 compared to gain of \$800,371 and \$1,346,614 for the same period at June 30, 2016. The change in gain of \$2,034,098 and \$1,025,859 for the three and six months ended June 30, 2017 reflects a more significant reduction in the fair value of warrants in 2017 compared to 2016.

The Company realized \$3,275 and \$5,408 of interest income during the three and six months period ended June 30, 2017 and \$2,493 and \$4,267 in the three and six months ended June 30, 2016.

For a discussion with regard to the status of the development of the SPORT Surgical System, please see 'Development Objectives'' below.

## Summary of Quarterly Results

The following is selected financial data for each of the eight most recently completed quarters, derived from the Company's financial statements, calculated in accordance with IFRS.

|                                                            | Three<br>Months<br>Ended<br>June 30,<br>2017 | Three<br>Months<br>Ended<br>March 31,<br>2017 | Three<br>Months<br>Ended<br>December<br>31, 2016 | Three<br>Months<br>Ended<br>September<br>30, 2016 | Three<br>Months<br>Ended<br>June 30,<br>2016 | Three<br>Months<br>Ended<br>March 31,<br>2016 | Three<br>Months<br>Ended<br>December<br>31, 2015 | Three<br>Months<br>Ended<br>September<br>30, 2015 |
|------------------------------------------------------------|----------------------------------------------|-----------------------------------------------|--------------------------------------------------|---------------------------------------------------|----------------------------------------------|-----------------------------------------------|--------------------------------------------------|---------------------------------------------------|
| Net sales                                                  | -                                            | -                                             | -                                                | -                                                 | -                                            | -                                             | -                                                | -                                                 |
| Net and<br>Comprehensive Loss<br>(gain) from<br>operations | \$1,865,913                                  | \$4,988,274                                   | \$2,008,365                                      | \$1,659,863                                       | \$7,934,874                                  | \$11,720,394                                  | \$13,136,604                                     | \$10,899,586                                      |
| Basic and diluted loss per share                           | \$0.01                                       | \$0.03                                        | \$0.01                                           | \$0.01                                            | \$0.05                                       | \$0.09                                        | \$0.12                                           | \$0.11                                            |

Significant changes in key financial data from the three months ended September 30, 2015 to the three months ended June 30, 2017 reflects the ongoing development of the SPORT Surgical System. Also included is the requirement to revalue the Company's warrant liability at fair value, with subsequent changes recorded through net and comprehensive loss for the period.

## Liquidity and Capital Resources

The Company currently does not generate any revenue or income (other than interest income on its cash balances) and accordingly, it is (and it will be for the foreseeable future) dependent primarily upon equity financing for any additional funding required for development and operating expenses.

The ability of the Company to arrange such financing in the future will depend in part upon prevailing capital market conditions and the business success of the Company. There can be no assurance that the Company will be successful in its efforts to arrange additional financing on terms satisfactory to the Company. If additional financing is raised by the issuance of shares or convertible securities from treasury, control of the Company may change and shareholders may suffer additional dilution. If adequate funds are not available, or are not available on acceptable terms, the Company may not be able to take advantage of opportunities, or otherwise to continue its technology development program at its current pace.

The Company had \$6,838,358 of cash and cash equivalents on hand and accounts payable and accrued liabilities of \$5,607,774 excluding warrant liability, at June 30, 2017, compared to \$4,339,911 and \$4,232,201 respectively, at December 31, 2016. The Company's working capital as at June 30, 2017 was \$4,218,393 excluding warrant liability, compared to \$2,366,832, at December 31, 2016.

Below is a table that sets out the various series of Titan warrants that were previously issued, using historic rates. The disclosure of the potential proceeds in the last column of the table below assumes all warrants are exercised on or before the expiry date. However, there is no assurance that any warrants will be exercised prior to their expiry.

|            | Issue Date         | Expiry Date        | Number<br>Issued | Number<br>Outstanding | Exercise<br>Price<br>(CDN \$) | Potential<br>Proceeds<br>(CDN \$) |
|------------|--------------------|--------------------|------------------|-----------------------|-------------------------------|-----------------------------------|
| TMD.WT.C   | March 13, 2013     | March 13, 2018     | 6,260,763        | 5,260,705             | \$1.25                        | 6,575,881                         |
| TMD.WT.F   | November 16, 2015  | November 16, 2020  | 7,012,195        | 7,012,195             | \$1.60                        | 11,219,512                        |
| TMD.WT.G   | February 12, 2016  | February 12, 2021  | 11,670,818       | 11,600,818            | \$1.00                        | 11,600,818                        |
| TMD.WT.G   | February 23, 2016  | February 12, 2021  | 1,746,789        | 1,746,789             | \$1.00                        | 1,746,789                         |
| TMD.WT.H   | March 31, 2016     | March 31, 2021     | 15,054,940       | 15,054,940            | \$1.20                        | 18,065,928                        |
| TMD.WT.H   | April 14, 2016     | March 31, 2021     | 2,258,241        | 2,258,241             | \$1.20                        | 2,709,889                         |
| TMD.WT.I   | September 20, 2016 | September 20, 2021 | 17,083,333       | 17,083,333            | \$0.75                        | 12,812,500                        |
| TMD.WT.I   | October 27, 2016   | September 20, 2021 | 2,030,000        | 2,030,000             | \$0.75                        | 1,522,500                         |
| NOT LISTED | March 16, 2017     | March 16, 2019     | 10,733,600       | 10,366,065            | \$0.40                        | 4,146,426                         |
| NOT LISTED | March 16, 2017     | March 16, 2021     | 10,733,600       | 10,733,600            | \$0.50                        | 5,366,800                         |
| NOT LISTED | June 29, 2017      | June 29, 2022      | 48,388,637       | 48,388,637            | \$0.20                        | 9,677,727                         |
| NOT LISTED | July 21, 2017      | June 29, 2022      | 11,117,000       | 11,117,00             | \$0.20                        | 2,223,400                         |
| TOTAL      |                    |                    | 144,089,916      | 142,652,323           |                               | 87,668,171                        |

## **Development Objectives**

The Company uses a combination of internal resources and external development firms to execute the research, development and commercialization plan for the Company's robotic surgical system.

In the first quarter of 2016, in consultation with its advisors and development partners, the Company re-engineered and optimized its 2016 development plan. This was done partially in view of developments within the robotic surgery sector and published changes to the FDA guidelines, "Applying Human Factors and Usability Engineering to Medical Devices", issued February 3, 2016. The Company reviewed the FDA's new guidelines and incorporated additional testing procedures and documentation into its Human Factor and Usability Trials. As a result of changes, the Company previously announced that it expected total costs for it to reach submission of a 510(k) application to the FDA and into early commercialization, to be approximately US\$70 million. The amounts and timing of The Company's actual expenditures will depend upon numerous factors, including the status of its development and commercialization efforts and the amount of cash generated through any strategic collaborations into which it may enter.

The Company estimates that it will require a minimum of approximately US\$12 million to fund its development milestones for the second half of 2017, including the completion of the initial requirements and architecture for simulation software and its planned training program, through to completion and reporting on pre-clinical animal studies at strategic facilities in the US and Europe. The Company also plans to confirm FDA clearance requirements and CE Mark pathways in coordination with regulatory authorities.

A complete estimate of the timing and costs for development milestones beyond 2017 are highly speculative. The Company does however estimate that a minimum of an additional US\$65 million will be required beyond the second quarter of 2017 in order to submit its 510(k) application to the FDA, apply for the CE Mark, and if successful with those efforts, proceed with early commercialization activities. However, given the uncertainty of, among other things, regulatory, the timing and number of pre-clinical studies (including live animal and human cadaver studies) performed, actual costs and development times may exceed management's current expectations and an accurate estimate of the future costs of the regulatory phases and development milestones beyond 2017 is not possible at this time.

The Company's current plan is to raise sufficient financing and continue the development and commercialization of the SPORT Surgical System at estimated incremental costs, and according to the timeline, as set forth in the table below.

# Current Development Plan

The Company anticipates development costs through to the second half of 2018 to be as set out in the table below.

| Development Milestones                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Estimated Cost (in<br>U.S. million \$) | Schedule for<br>Milestone<br>Completion | Comments                                                                 |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|-----------------------------------------|--------------------------------------------------------------------------|
| Complete human factors and usability studies                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                        |                                         |                                                                          |
| Finalize user requirements for 1st generation robotic surgical system                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 4.5                                    | Q1 2017                                 | Completed                                                                |
| Select and confirm strategic facilities for pre- clinical studies in US and Europe                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 0.5                                    | Q2 2017                                 | Three sites selected, one<br>completed and two to be<br>confirmed in Q3. |
| Test and evaluate performance of subsystems of existing EV units                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 1.8                                    | Q2 2017                                 | Completed                                                                |
| Complete initial formative human factors studies                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 1.0                                    | Q2 2017                                 | Completed                                                                |
| Initiate design changes based on subsystem performance and human factors evaluation                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 1.0                                    | Q2 2017                                 | Initiated on Schedule; Design<br>Changes in Process                      |
| <ul> <li>Complete and verify system design architecture, including performance testing in laboratory environment and design of surgeon simulation training modules         <ul> <li>Implement design changes and retest system and subsystems</li> <li>Update Design History File and documentation for relevant modules of Company Quality Management Systems ("QMS")</li> <li>Complete initial requirements and architecture for surgeon simulation software and training program design, as required in preparation for FDA submittal</li> </ul> </li> </ul> | 5.7(2)                                 | Q3 2017                                 |                                                                          |
| Verify system performance in pre-clinical (live animal labs, swine), while         establishing clear regulatory pathways for US and Europe         -       Complete and report on pre-clinical live animal (swine) studies at strategic facilities in US and Europe         -       Confirm FDA and CE Mark pathways in coordination with regulatory authorities                                                                                                                                                                                               | 5.9(3)                                 | Q4 2017                                 |                                                                          |

| Development Milestones                                                                                                                                                                                                                                  | Estimated Cost<br>(in U.S. million \$) | Schedule for<br>Milestone<br>Completion | Comments |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|-----------------------------------------|----------|
| Complete software development, system design and<br>update Design History File for regulatory filing<br>applications                                                                                                                                    | 10.0(4)                                | Q1 2018                                 |          |
| Verify production system operation with clinical<br>experts under rigorous formal (summative) human<br>factors evaluation under simulated robotic<br>manipulation exercises, and exercise completed<br>surgeon simulation software and training program | 9.5(5)                                 | Q2 2018                                 |          |
| Complete and document pre-clinical live animal<br>(swine) surgery studies that are representative of<br>anticipated human surgeries for FDA submittal                                                                                                   | TBD(1)                                 | Q3 2018                                 |          |
| Prepare and submit 510(k) application to FDA and<br>prepare technical file for CE Mark and submit to<br>European Notified Body                                                                                                                          | TBD(1)                                 | Q4 2018                                 |          |
| - Publish white papers on pre-clinical studies containing evidence of system performance in live animal surgeries that are representative of anticipated human surgeries                                                                                |                                        |                                         |          |
| Anticipated receipt of FDA 510(k) clearance and<br>CE Mark                                                                                                                                                                                              | TBD <sup>(1)</sup>                     | H1 2019                                 |          |
| Perform successful human surgeries at initial US<br>and European training centers                                                                                                                                                                       |                                        | H2 2019                                 |          |
| TOTAL                                                                                                                                                                                                                                                   | TBD(1)                                 |                                         |          |

## Notes:

(1) A specific cost for individual milestone completion cannot be estimated at this time.

(2) Includes research & development costs estimated at approximately US \$4.4 million, and general & administrative costs estimated at approximately US \$1.3 million.

(3) Includes research & development costs estimated at approximately US \$4.7 million, and general & administrative costs estimated at approximately US \$1.2 million.

(4) Includes research & development costs estimated at approximately US \$8.7 million, and general & administrative costs estimated at approximately US \$1.3 million.

(5) Includes research & development costs estimated at approximately US \$8.3 million, and general & administrative costs estimated at approximately US \$1.2 million.

Upon completion of the development of the SPORT Surgical System and following receipt of all applicable regulatory approvals in the United States and Europe, the Company intends to utilize a direct sales force and/or distribution partner(s) to initiate marketing the SPORT Surgical System to hospitals.

Due to the nature of technology research and development, there is no assurance that these objectives will be achieved, and there can be no assurance with respect to the time or resources that may be required. The Company expects that additional specific milestones could be identified as the development of its SPORT Surgical System progresses, or existing milestones, budgets and the schedule for completion of each milestone may change depending on a number of factors including the results of the Company's development program, the availability of financing and the ability of development firms engaged by the Company to complete work assigned to them. The total costs to complete the development of the Company's SPORT Surgical System as referenced above are only an estimate based on current information available to the Company and cannot yet be determined with a high degree of certainty, and the costs may be substantially higher than estimated. Please see "*Caution Regarding Forward-Looking Statements*" and "*Risk Factors*".

Please also refer to the risk factors set forth starting on page 16 of the Company's Annual Information Form for the 2016 fiscal year, available on SEDAR at www.sedar.com.

#### Financings

#### Offerings During Q2 2017

On June 29, 2017 the Company completed an offering of securities (the "Offering") pursuant to an agency agreement (the "June Agency Agreement") dated June 26, 2017 between the Company and Bloom Burton Securities Inc. (the "Bloom Burton"). At the first closing of the Offering on June 29, 2017, the Company sold 48,388,637 units at a price of CDN \$0.15 per unit for gross proceeds of approximately \$5,576,357 (\$4,857,152 net of closing cost including cash commission of \$382,689 paid in accordance with the terms of the June Agency Agreement). Each unit consisted of one common share of the Company and one common share purchase warrant, each warrant entitles the holder thereof to acquire one common share of the Company at an exercise price of CDN \$0.20 and expires June 29, 2022. The warrants were valued at \$2,788,274 based on the value of comparable warrants at the time and the balance of \$2,788,083 was allocated to common shares. In addition to the cash commission paid to Bloom Burton, broker warrants were issued to Bloom Burton or its syndicate which entitle the holder to purchase 3,285,986 common shares at a price of CDN \$0.15 per share prior to expiry on June 29, 2019.

On July 21, 2017 Titan completed the second closing of the Offering pursuant to which the Company sold an additional 11,117,000 units at a price of CDN \$0.15 per unit for gross proceeds of approximately \$1,328,871 (\$1,197,780 net of closing costs including cash commission of \$93,021 paid in accordance with the terms of the June Agency Agreement). Each unit consisted of one common share of the Company and one common share purchase warrant, each warrant entitles the holder thereof to acquire one common share of the Company at an exercise price of CDN \$0.20 and expiring June 29, 2022. The warrants were valued at \$575,844 based on the value of comparable warrants at the time and the balance of \$753,027 was allocated to common shares.

Pursuant to the agency agreement, in addition to the cash commission paid to the Agent, broker warrants were issued to the Agent which entitle the holder to purchase 778,190 Common Shares at a price of CDN \$0.15 per share prior to expiry on June 29, 2019.

## Offerings During Q1 2017

On March 16, 2017 Titan completed an offering (the "March Offering") of securities made pursuant to an agency agreement dated March 10, 2017 between the Company and Bloom Burton (the "Agent"). The Company sold 21,467,200 units under the Offering at a price of CDN\$0.35 per unit for gross proceeds of approximately \$5,642,537 (\$5,039,114 net of closing cost including cash commission of \$394,316 paid in accordance with the terms of the agency agreement). Each unit consisted of one common share of the Company and (i) one-half of one common share purchase warrant, each whole warrant entitling the holder thereof to acquire one common share of the Company at an exercise price of CDN \$0.40 and expiring March 16, 2019, and (ii) one-half of one common share purchase warrant, each whole warrant entitling the holder thereof to acquire one common share of the Company at an exercise price of CDN \$0.50 and expiring March 16, 2019, and (ii) one-half of one common share purchase warrant, each whole warrant entitling the holder thereof to acquire one common share of the Company at an exercise price of CDN \$0.50 and expiring March 16, 2021. The warrants were valued at \$1,297,810 based on the value of comparable warrants at the time and the balance of \$4,344,727 was allocated to common shares.

Pursuant to the agency agreement, in addition to the cash commission paid to Bloom Burton, broker warrants were issued to Bloom Burton which entitle the holder to purchase 1,500,155 common shares at a price of CDN \$0.35 per share prior to expiry on March 16, 2019.

## Private Placements - Longtai Medical Inc.

On October 30, 2015, the Company entered into a letter agreement (the "Letter Agreement") withLongtai Medical Inc. Under the terms of the Letter Agreement, on November 23, 2015, Longtai subscribed for and purchased US \$4,000,000 worth of common shares under a private placement, at a subscription price of CDN \$1.23 per common share. In the Letter Agreement, the Company granted to Longtai exclusive rights to negotiate with the Company for an exclusive marketing, sales and distribution agreement for the Company's SPORT Surgical System in the Asia Pacific region (the "Distributorship Agreement") for a period of 183 days commencing at closing of the private placement. Additionally, Longtai paid to the Company US \$2,000,000 as a deposit toward the Distributorship Agreement ("Distributorship Deposit"), which is required to be repaid to Longtai to negotiate the Distributorship Agreement and for the repayment of the Distributorship Deposit to Longtai executed a three month negotiation period and the date for repayment of the Distributorship Deposit to August 19, 2016.

On August 24, 2016, the Company announced that it had agreed to extend the exclusive rights granted to Longtai to negotiate the Distributorship Agreement from the previous three month extension to monthly progress reviews. As of April 28, 2017, Titan announce that it had terminated its negotiations with Longtai Medical Inc. and it would return a \$2.0 million deposit to Longtai. Subsequently, on July 31, 2017 Titan completed a Subscription Agreement with Longtai Medical Inc. to convert the \$2.0 million distribution deposit, received in November 2015, to equity. Under the terms of the Subscription Agreement, Titan will convert the full amount of the Distributorship Deposit into common shares at a price of CDN \$0.15 per share and common share purchase warrants, with each warrant exercisable for one common share at an exercise price of CDN \$0.20 until expiry on the date that is 60 months from the closing of the private placement (the "Private Placement"). The Private Placement is subject to customary regulatory approval, including the approval of the TSX, and, if completed, will result in the issuance of 16,892,000 common shares and 16,892,000 warrants to Longtai.

#### **Off-Balance Sheet Arrangements**

Other than for leased premises occupied by the Company and licensing agreements, the Company does not utilize off balance sheet arrangements.

#### **Outstanding Share Data**

The following table summarizes the outstanding share capital as of the date of this MD&A:

| Type of Securities             | Number of common shares issued or issuable<br>upon conversion |  |  |
|--------------------------------|---------------------------------------------------------------|--|--|
| Common shares                  | 247,851,818                                                   |  |  |
| Stock options(1)               | 16,228,932                                                    |  |  |
| Warrants                       | 142,652,323                                                   |  |  |
| Broker warrants <sup>(2)</sup> | 8,979,289                                                     |  |  |

#### Notes:

- (1) The Company has outstanding options enabling certain employees, directors, officers and consultants to purchase common shares. Please refer to note 4(b) of the Unaudited Condensed Interim Financial Statements for terms of such options.
- (2) Pursuant to the agency agreement in respect of the February 2016 offering, in addition to the cash commission paid to the agent for the offering, 916,443 broker warrants were issued to the agent. Each broker warrant entitles the holder thereof to acquire one unit of the Company at the price of CDN\$0.90 for a period of 24 months following the closing date. Each unit consists of one common share and one warrant. Each warrant entitles the holder to acquire one common share at an exercise price of CDN\$1.00 for a period of 60 months from the date of closing.

Pursuant to the agency agreement in respect of the March 2016 offering, in addition to the cash commission paid to Bloom Burton, 1,190,921 broker warrants were issued to the agent. Each broker warrant entitles the holder thereof to acquire one unit of the Company at the price of CDN \$1.00 for a period of 24 months following the closing date. Each unit consists of one common share and one warrant. Each warrant entitles the holder to acquire one common share at an exercise price of CDN \$1.20 per share for a period of 60 months from the date of closing.

Pursuant to the agency agreement in respect of the September 2016 offering, in addition to the cash commission paid to the agents, 1,307,594 broker warrants were issued to the agents. Each broker warrant entitles the holder thereof to acquire one common share of the Company at the price of CDN \$0.60 for a period of 24 months following the closing date.

Pursuant to the agency agreement in respect of the March 2017 offering, in addition to the cash commission paid to the agents, 1,500,155 broker warrants were issued to the agents. Each broker warrant entitles the holder thereof to acquire one common share of the Company at the price of CDN \$0.35 for a period of 24 months following the closing date.

Pursuant to the agency agreement in respect of the June 2017 offering, in addition to the cash commission paid to the agents, 4,064,176 broker warrants were issued to the agents. Each broker warrant entitles the holder thereof to acquire one common share of the Company at the price of CDN \$0.15 for a period of 24 months following the closing date.

A total of 916,443, 1,190,921, 1,307,594,1,500,155 and 4,064,176 broker warrants were issued in connection with the February 2016 offering, March 2016, September 2016, March 2017 and June 2017 offering, respectively. As of the date hereof, all broker warrants remain outstanding.

#### Accounting Policies

The accounting policies set out in the notes to the unaudited condensed interim financial statements have been applied in preparing the unaudited condensed interim financial statements for the three and six months ended June 30, 2017, and the comparative information presented in the unaudited condensed interim financial statements for the three and six months ended June 30, 2016.

The preparation of financial statements in conformity with IAS 34 requires management to make estimates and assumptions that affect the reported amount of assets and liabilities and disclosure of provisions at the date of the financial statements and the reported amount of expenses during the period. Financial statement items subject to significant judgement include, (a) the measurement of stock based compensation and (b) the fair value estimate of the initial measurement of new warrant liabilities. While management believes that the estimates and assumptions are reasonable, actual results may differ.

#### (a) Stock Options

The Black-Scholes model used by the Company to determine fair values of stock options and warrants was developed for use in estimating the fair value of the stock options and warrants. This model requires the input of highly subjective assumptions including future stock price volatility and expected time until exercise. Changes in the subjective input assumptions can materially affect the fair value estimate.

# (b) Warrant Liability

In accordance with IAS 32, because the exercise price of new warrants are not a fixed amount, they are denominated in a currency (Canadian dollar) other than the Company's functional currency (U.S. dollar). Accordingly, the warrants are accounted for as a derivative financial liability. The warrant liability is initially measured at fair value and subsequent changes in fair value are recorded through Net and Comprehensive Loss for the period. The accounting guidance for fair value measurements prioritizes the inputs used in measuring fair value into the following hierarchy:

Level 1 - Quoted prices (unadjusted) in active markets for identical assets or liabilities;

Level 2 – Inputs other than quoted prices included within Level 1 that are directly or indirectly observable:

Level 3 – Unobservable inputs in which little or no market activity exists, therefore requiring an entity to develop its own assumptions about the assumptions that market participants would use in pricing.

The fair value of our Warrant liability is initially based on Level 2 (significant observable inputs) and at June 30, 2017 is based on Level 1, quoted prices (unadjusted) in an active market, for our listed warrants and level 2 for our unlisted warrants.

## **Related Party Transactions**

During the three and six months ended June 30, 2017, transactions between the Company and directors, officers and other related parties were related to compensation matters in the normal course of operations and are measured at the exchange amount, which is the amount of consideration established and agreed to by the related parties.

## Financial Instruments

The Company's financial instruments consist of cash and cash equivalents, amounts receivable, accounts payable and accrued liabilities, warrant liability, and other liabilities and charges. The fair value of these financial instruments approximates their carrying values, unless otherwise noted, due to the short term maturities of these instruments or the discount rate applied.

## Outlook

The Company's newly expanded management team has focused its efforts on planned, systematic execution of the development of the SPORT Surgical System, directed toward commercialization.

Although the challenges associated with the successful design development and commercialization of a system as advanced as the SPORT Surgical System are numerous, management believes that with the support of its contract product development and manufacturing partners, it can succeed.

On March 23, 2017 the Company published a revised set of milestones based on a detailed review of its progress expectations going forward. Five milestones were scheduled for completion during the first half of 2017. During the first quarter of 2017, Titan successfully completed its first milestone, finalization of the user requirements for its first generation robotic surgical system. By June 30, 2017, the other four milestones were substantially completed. Management believes that the Company remains on track to complete all of its published milestones for the second half of 2017. During the third quarter, the Company expects to have completed and verified the robotic system design architecture, including performance testing in a laboratory environment and design of surgeon simulation training modules. By the end of 2017, management expects to have placed advanced prototype systems in the three strategic hospital facilities for the purpose of conducting pre-clinical live animal studies.

Concurrent to product development efforts, the Company is mapping the regulatory pathways in the US and Europe, and developing its Quality Management System in preparation for projected FDA clearance and CE Mark approval. As required product testing is completed, the results will be incorporated into the documentation and technical files to be reviewed by regulatory authorities.

Over the next twelve months, the Company plans to raise financing essential to continue the development and commercialization of the SPORT Surgical System. Management will continue to assess the reasonableness of development milestones, as well as timelines and related cost estimates, as additional financing is secured.

The Company's immediate plans include continuing ongoing development, pursuit of key strategic product development and manufacturing relationships, and continuing efforts to secure its intellectual property through the patent and licensing process. The pace at which the Company can carry out these activities will be substantially dependent on its ability to raise the necessary capital on a timely basis.

## Additional Information

Additional information relating to the Company, including Titan's Annual Information Form for the 2016 fiscal year, is available on SEDAR atwww.sedar.com.

# FORM 52-109F2 CERTIFICATION OF INTERIM FILINGS FULL CERTIFICATE

I, David J. McNally, Chief Executive Officer of Titan Medical Inc., certify the following:

- Review: I have reviewed the interim financial report and interim MD&A (together, the "interim filings") of Titan Medical Inc. (the "issuer") for the interim period ended June 30, 2017.
- 2. No misrepresentations: Based on my knowledge, having exercised reasonable diligence, the interim filings do not contain any untrue statement of a material fact or omit to state a material fact required to be stated or that is necessary to make a statement not misleading in light of the circumstances under which it was made, with respect to the period covered by the interim filings.
- 3. Fair presentation: Based on my knowledge, having exercised reasonable diligence, the interim financial report together with the other financial information included in the interim filings fairly present in all material respects the financial condition, financial performance and cash flows of the issuer, as of the date of and for the periods presented in the interim filings.
- 4. Responsibility: The issuer's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (DC&P) and internal control over financial reporting (ICFR), as those terms are defined in National Instrument 52-109 Certification of Disclosure in Issuers' Annual and Interim Filings, for the issuer.
- Design: Subject to the limitations, if any, described in paragraphs 5.2 and 5.3, the issuer's other certifying officer and I have, as at the end of the period covered by the interim filings
  - (a) designed DC&P, or caused it to be designed under our supervision, to provide reasonable assurance that
    - material information relating to the issuer is made known to us by others, particularly during the period in which the interim filings are being prepared; and
    - (ii) information required to be disclosed by the issuer in its annual filings, interim filings or other reports filed or submitted by it under securities legislation is recorded, processed, summarized and reported within the time periods specified in securities legislation; and
  - (b) designed ICFR, or caused it to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with the issuer's GAAP.
- 5.1 Control framework: The control framework the issuer's other certifying officer and I used to design the issuer's ICFR is Integrated Framework (COSO).

- 5.2 ICFR - material weakness relating to design: N/A
- 5.3 Limitation on scope of design: N/A
- 6. Reporting changes in ICFR: The issuer has disclosed in its interim MD&A any change in the issuer's ICFR that occurred during the period beginning on January 1, 2017 and ended on June 30, 2017 that has materially affected, or is reasonably likely to materially affect, the issuer's ICFR.

Date: August 8, 2017

my - 0 David J. McNally Chief Executive Officer

Titan Medical Inc.

# FORM 52-109F2 CERTIFICATION OF INTERIM FILINGS FULL CERTIFICATE

I, Stephen Randall, Chief Financial Officer of Titan Medical Inc., certify the following:

- Review: I have reviewed the interim financial report and interim MD&A (together, the "interim filings") of Titan Medical Inc. (the "issuer") for the interim period ended June 30, 2017.
- 2. No misrepresentations: Based on my knowledge, having exercised reasonable diligence, the interim filings do not contain any untrue statement of a material fact or omit to state a material fact required to be stated or that is necessary to make a statement not misleading in light of the circumstances under which it was made, with respect to the period covered by the interim filings.
- 3. Fair presentation: Based on my knowledge, having exercised reasonable diligence, the interim financial report together with the other financial information included in the interim filings fairly present in all material respects the financial condition, financial performance and cash flows of the issuer, as of the date of and for the periods presented in the interim filings.
- 4. Responsibility: The issuer's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (DC&P) and internal control over financial reporting (ICFR), as those terms are defined in National Instrument 52-109 Certification of Disclosure in Issuers' Annual and Interim Filings, for the issuer.
- Design: Subject to the limitations, if any, described in paragraphs 5.2 and 5.3, the issuer's other certifying officer and I have, as at the end of the period covered by the interim filings
  - (a) designed DC&P, or caused it to be designed under our supervision, to provide reasonable assurance that
    - material information relating to the issuer is made known to us by others, particularly during the period in which the interim filings are being prepared; and
    - (ii) information required to be disclosed by the issuer in its annual filings, interim filings or other reports filed or submitted by it under securities legislation is recorded, processed, summarized and reported within the time periods specified in securities legislation; and
  - (b) designed ICFR, or caused it to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with the issuer's GAAP.
- 5.1 Control framework: The control framework the issuer's other certifying officer and I

used to design the issuer's ICFR is Integrated Framework (COSO).

- 5.2 ICFR material weakness relating to design: N/A
- 5.3 Limitation on scope of design: N/A
- 6. Reporting changes in ICFR: The issuer has disclosed in its interim MD&A any change in the issuer's ICFR that occurred during the period beginning on January 1, 2017 and ended on June 30, 2017 that has materially affected, or is reasonably likely to materially affect, the issuer's ICFR.

Date: August 8, 2017

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Stephen D. Randall Chief Financial Officer Titan Medical Inc.



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# TITAN MEDICAL PARTNERS WITH INSTITUT HOSPITALO-UNIVERSITAIRE DE STRASBOURG FOR SPORT FEASIBILITY AND VALIDATION STUDIES

TORONTO (August 22, 2017) – Titan Medical Inc. ("Titan" or the "Company") (TSX:TMD) (OTCQB: TITXF), a medical device company focused on the design, development and commercialization of a robotic surgical system for application in minimally invasive surgery ("MIS"), announces the signing of an agreement with Institut Hospitalo-Universitaire de Strasbourg ("IHU Strasbourg") in France for feasibility and validation studies to support Titan's regulatory applications for the SPORT Surgical System. These studies are expected to commence in the fourth quarter of 2017 and continue into 2018.

David McNally, President and CEO of Titan Medical, said, "We are thrilled to partner with IHU Strasbourg, one of Europe's premier research and training centers, for continued feasibility and validation studies for the SPORT system. IHU Strasbourg is well known for its Institute of Image-Guided Surgery and is perfectly suited to combine the know-how of renowned surgeons, scientists and healthcare experts in order to provide effective product evaluation, validation and surgical training. IHU Strasbourg is uniquely qualified with a stellar reputation, strong surgeon engagement and convenient access, which we believe will contribute positively to our planned commercialization activities."

"With the recent engagement of Florida Hospital Nicholson Center in Orlando and now IHU Strasbourg, we are well on our way to meeting our goal of securing three partner validation sites," added Mr. McNally.

Prof. Jacques Marescaux, Chief Executive Officer of IHU Strasbourg, said, "The four pillars of IHU Strasbourg's mission are Patient Care, Innovation, Education and Technology Transfer. We are excited to be partnering with Titan Medical and combining our expertise to shape what could be the next frontier in minimally invasive surgery. IHU Strasbourg's close relationship with the IRCAD laparoscopic training center, which has headquarters in Strasbourg, could also allow Titan Medical future access to the rapidly growing global footprint of IRCAD's premier training facilities."

# About the Institut Hospitalo-Universitaire Strasbourg, France

The Institut Hospitalo-Universitaire de Strasbourg with its Institute of Image-Guided Surgery is a unique medical and surgical center dedicated to the management of digestive diseases. The Institute of Image-Guided Surgery develops innovative surgery to deliver personalized patient care, combining the most advanced minimally invasive techniques and the latest medical imaging methods.

The Institute of Image-Guided Surgery is:

- A healthcare center offering personalized treatment using the least invasive techniques;
- A research center gathering teams to design and develop instruments and procedures for the future;
- An international training center for professionals and students driven to learn the most advanced minimally invasive practices.

The Institute of Image-Guided Surgery is a designated part of the "Programme Investissements d'Avenir" and benefits from the financial support of the government managed by the "Agence Nationale de la Recherche" under reference code ANR-10-IAHU-02. The Institute is also funded by the Région Alsace, the Conseil Général du Bas-Rhin, the Communauté urbaine de Strasbourg and the European Union.

For more information, please visit the Institut Hospitalo-Universitaire de Strasbourg's website at http://www.ihu-strasbourg.eu/ihu/en/.

#### About Titan Medical Inc.

Titan Medical Inc. is a Canadian public company focused on research and development through to the planned commercialization of computer-assisted robotic surgical technologies for application in minimally invasive surgery. The Company is currently developing the SPORT Surgical System, a single-port robotic surgical system. The SPORT Surgical System is comprised of a surgeon-controlled patient cart that includes a 3D high definition vision system and multi-articulating instruments for performing MIS procedures, and a surgeon workstation that provides the surgeon with an advanced ergonomic interface to the patient cart and a 3D endoscopic view inside the patient's body during MIS procedures. With the SPORT SurgicalSystem, the Company aims to pursue a broad set of surgical indications, including general abdominal, gynecologic and urologic procedures.

For more information, please visit the Company's website at www.titanmedicalinc.com.

#### Forward-Looking Statements

This news release contains "forward-looking statements" which reflect the current expectations of management of the Company's future growth, results of operations, performance and business prospects and opportunities. Wherever possible, words such as "may", "would", "could", "will", "anticipate", "believe", "plan", "expect", "intend", "estimate", "potential for" and similar expressions have been used to identify these forward-looking statements. These statements, including statements with respect to the use of the net proceeds of the Offering and the anticipated listing of the Common Shares on the TSX, reflect management's current beliefs with respect to future events and are based on information currently available to management. Forward-looking statements involve significant risks, uncertainties and assumptions. Many factors could cause the Company's actual results, performance or achievements to be materially different from any future results, performance or achievements that may be expressed or implied by such forward-looking statements, including, without limitation, those listed in the "Risk Factors" section of the Company's Annual Information Form dated March 31, 2017 (which may be viewed at www.sedar.com). Should one or more of these risks or uncertainties materialize, or should assumptions underlying the forward looking statements may vary materially from those expressed or implied by the forward-looking statements contained in this news release. These factors should be considered carefully, and prospective investors should not place undue reliance on the forward-looking statements. Although the forward-looking statements contained in the news release are based upon what management currently believes to be reasonable assumptions, the Company cannot assure prospective investors that actual results, performance or achievements will be consistent with these forward-looking statements.

Contacts:

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#### TITAN COMPLETES AGREEMENT WITH LONGTAI MEDICAL INC. FOR EQUITY CONVERSION OF DISTRIBUTORSHIP DEPOSIT

**TORONTO (August 24, 2017)** – Titan Medical Inc. (TSX: TMD) (OTCQB: TITXF) (**'Titan**'' or the **"Company**''), a medical device company focused on the design, development and commercialization of a robotic surgical system for application in minimally invasive surgery (**'MIS**''), announced today that it has completed its previously announced agreement with Longtai Medical Inc. (**'Longtai**'') for the equity conversion (the **'Transaction**'') of Longtai's US\$2.0 million deposit that was previously scheduled to be refunded to Longtai.

Under the terms of the subscription agreement dated July 31, 2017 between Titan and Longtai, Titan issued to Longtai 16,892,000 units (Units") at an assigned issue price of CDN\$0.15 per Unit. Each Unit consists of one common share ("Common Share") and one common share purchase warrant ("Warrant"), with each Warrant exercisable for one Common Share at an exercise price of CDN\$0.20 per Warrant for 60 months from the closing of the Transaction.

All securities issued pursuant to the Transaction are subject to a four-month hold period in accordance with applicable Canadian securities laws.

#### About Titan Medical Inc.

Titan is focused on the design and development through the planned commercialization of a robotic surgical system for use in MIS. The Company's SPORT Surgical System, currently under development, includes a surgeon-controlled robotic platform that features multi-articulating instruments for performing MIS procedures through a single incision. The surgical system also includes a workstation that provides a surgeon with an advanced ergonomic interface to the robotic platform for controlling the instruments and provides a 3D high-definition endoscopic view inside a patient's body. The SPORT Surgical System is designed to enable surgeons to perform a broad set of general abdominal, gynecologic and urologic procedures. For more information, visit the Company's website at www.titanmedicalinc.com.

#### **Forward Looking Statements**

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#### Titan Medical to Present at the 19th Annual Rodman & Renshaw Global Investment Conference

**TORONTO (September 5, 2017)** - Titan Medical Inc. (TSX: TMD) (OTCQB: TITXF), a medical device company focused on the design and development of a robotic surgical system for application in minimally invasive surgery (MIS), today announced that David McNally, President and CEO of Titan Medical, will present at the 19th Annual Rodman & Renshaw Global Investment Conference on Monday, September 11 at 5:05 p.m. Eastern time. Mr. McNally will provide a corporate overview discussing the Company's SPORT Surgical System, currently under development. The conference is being held on September 10-12, 2017 at Lotte New York Palace Hotel in New York City.

To access the live webcast of the presentation, please click here. A replay will be available following the presentation. For more information about the conference, please visit Rodman & Renshaw 19<sup>th</sup> Annual Global Investment Conference.

#### About Titan Medical Inc.

Titan Medical Inc. is focused on the design and development through the planned commercialization of a robotic surgical system for use in MIS. The Company's SPORT Surgical System, currently under development, includes a surgeon-controlled robotic platform that features multi-articulating instruments for performing MIS procedures through a single incision. The surgical system also includes a workstation that provides a surgeon with an advanced ergonomic interface to the robotic platform for controlling the instruments and provides a 3D high-definition endoscopic view inside a patient's body. The SPORT Surgical System is designed to enable surgeons to perform a broad set of general abdominal, gynecologic and urologic procedures. For more information, visit the Company's website at <u>www.titanmedicalinc.com</u>.

#### Forward-Looking Statements

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# CONTACTS:

# Item 1 Name and Address of Company

Titan Medical Inc. (the **"Company"** or **"Titan"**) 170 University Avenue Suite 1000 Toronto, Ontario M5H 3B3

# Item 2 Date of Material Change

August 24, 2017

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Item 3 News Release
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The press release attached as Schedule "A" was disseminated through Marketwired on August 24, 2017 with respect to the material change.

# Item 4 Summary of Material Change

On August 24, 2017 the Company closed its previously announced transaction with Longtai Medical Inc. ("Longtai") for the conversion of Longtai's US\$2.0 million distributorship deposit into equity.

| Item 5            | Full Description of Material Change                         |
|-------------------|-------------------------------------------------------------|
| 5.1               | Full Description of Material Change                         |
| Please see the pr | ress release attached as Schedule "A".                      |
| 5.2               | Disclosure for Restructuring Transactions                   |
| Not applicable.   |                                                             |
| Item 6            | Reliance on subsection 7.1(2) of National Instrument 51-102 |
| Not applicable.   |                                                             |
| Item 7            | Omitted Information                                         |
| Not applicable.   |                                                             |
|                   |                                                             |

# Item 8 Executive Officer

The following executive officer is knowledgeable about the material change and may be contacted about this report:

Stephen Randall Chief Financial Officer (416) 548-7522 (ext. 152)

Email: stephen@titanmedicalinc.com Website: www.titanmedicalinc.com

# Item 9 Date of Report

September 8, 2017.

Schedule "A"



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#### TITAN COMPLETES AGREEMENT WITH LONGTAI MEDICAL INC. FOR EQUITY CONVERSION OF DISTRIBUTORSHIP DEPOSIT

**TORONTO (August 24, 2017)** – Titan Medical Inc. (TSX: TMD) (OTCQB: TITXF) (**'Titan**'' or the **'Company**''), a medical device company focused on the design, development and commercialization of a robotic surgical system for application in minimally invasive surgery (**'MIS**''), announced today that it has completed its previously announced agreement with Longtai Medical Inc. (**'Longtai**'') for the equity conversion (the **'Transaction**'') of Longtai's US\$2.0 million deposit that was previously scheduled to be refunded to Longtai.

Under the terms of the subscription agreement dated July 31, 2017 between Titan and Longtai, Titan issued to Longtai 16,892,000 units (Units") at an assigned issue price of CDN\$0.15 per Unit. Each Unit consists of one common share ("Common Share") and one common share purchase warrant ("Warrant"), with each Warrant exercisable for one Common Share at an exercise price of CDN\$0.20 per Warrant for 60 months from the closing of the Transaction.

All securities issued pursuant to the Transaction are subject to a four-month hold period in accordance with applicable Canadian securities laws.

#### About Titan Medical Inc.

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### TITAN MEDICAL AND FLORIDA HOSPITAL NICHOLSON CENTER ANNOUNCE THE WORLD'S FIRST INSTALLATION OF SPORT SURGICAL SYSTEM

TORONTO (September 18, 2017) - Titan Medical Inc ("Titan" or the "Company") (TSX: TMD) (OTCQB: TITXF) a medical device company focused on the design, development and commercialization of a robotic surgical system for application in minimally invasive surgery (MIS), and Florida Hospital Nicholson Center announce the installation of Titan Medical's SPORT Surgical System at the hospital's training facility in Celebration, Florida. This is the first installation in the world for pre-clinical feasibility and validation studies of the SPORT Surgical System, a single port robotic system.

David McNally, President and CEO of Titan Medical, said, "We are thrilled to announce the first of three installations planned in U.S. and European Centers of Excellence in 2017. I am pleased with the focus and execution of our team as we deliver this first system ahead of our fourth quarter milestone projection. We look forward to beginning preclinical feasibility and validation studies in the coming weeks in a variety of surgical disciplines. Based on surgeon enthusiasm, we remain confident in the tremendous potential of single port robotic surgery to improve the physician experience as well as surgical outcomes."

Scott Magnuson, M.D., Chief Medical Officer of Florida Hospital Nicholson Center, said, "We are happy to be Titan Medical's partner in this journey and look forward to a successful collaboration with the development of the SPORT Surgical System. At Florida Hospital Nicholson Center, we take pride in being the preferred partner of choice for companies developing cutting edge products that hold potential to benefit medicine and surgery."

#### About Florida Hospital Nicholson Center

For more than a decade, the Florida Hospital Nicholson Center has trained more than 50,000 physicians from around the globe on leading-edge clinical and surgical techniques. Utilizing state-of-the-art surgical suites and labs, plus advanced medical simulation robotics and learning centers, medical professionals can acquire and advance their skills in a highly collaborative surgical learning environment.

For more information, please visit the Nicholson Center website atwww.NicholsonCenter.com.

#### About Titan Medical Inc.

Titan Medical Inc. is a Canadian public company focused on research and development through to the planned commercialization of computer-assisted robotic surgical technologies for application in minimally invasive surgery. The Company is currently developing the SPORT Surgical System, a single-port robotic surgical system. The SPORT Surgical System is comprised of a surgeon-controlled patient cart that includes a 3D high definition vision system and multi-articulating instruments for performing MIS procedures, and a surgeon workstation that provides the surgeon with an advanced ergonomic interface to the patient cart and a 3D endoscopic view inside the patient's body during MIS procedures. With the SPORT Surgical System, the Company aims to pursue a broad set of surgical indications, including general abdominal, gynecologic and urologic procedures.

For more information, please visit the Company's website at www.titanmedicalinc.com.

#### **Forward-Looking Statements**

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#### TITAN MEDICAL REPORTS SUCCESS WITH WORLD'S FIRST GYNECOLOGIC, COLORECTAL AND UROLOGIC SINGLE PORT ROBOTIC PROCEDURES PERFORMED USING SPORT SURGICAL SYSTEM

TORONTO (September 25, 2017) – Titan Medical Inc. ("Titan" or the "Company") (TSX:TMD) (OTCQB: TITXF), a medical device company focused on the design, development and commercialization of a robotic surgical system for application in minimally invasive surgery (MIS), announces the successful completion of the world's first gynecologic, colorectal and urologic single port robotic procedures using its advanced prototype SPORT Surgical System at the Florida Hospital Nicholson Center in Celebration, Florida. These procedures are the first preclinical feasibility and validation studies intended to support SPORT Surgical System regulatory submissions. A video of selected procedures has been posted on Titan Medical's website here <a href="http://www.titanmedicalinc.com/technology/#videos.">http://www.titanmedicalinc.com/technology/#videos.</a>

David McNally, President and CEO of Titan Medical, said, "We are thrilled to successfully complete our first preclinical single port robotic procedures within the gynecologic, colorectal and urologic surgical disciplines using a fully-functional SPORT system, on time and on plan. We credit the expertise of the surgeons, along with the professional team at Nicholson Center who worked seamlessly with our product development team to accomplish this milestone within the first week of installation. Under the expert guidance of renowned surgeons Dr. Ricardo Estape, Dr. Eduardo Parra-Davila and Dr. Vipul Patel, we confirmed the feasibility of single port abdominal robotic surgery with our unique multi-articulated robotic instruments and 3D high-definition visualization in a variety of surgical procedures. This is a significant step forward for Titan Medical and validates our belief that single port robotic surgery holds tremendous potential to improve patient outcomes in gynecologic, colorectal and urologic surgery."

Ricardo Estape, M.D., a robotic gynecologic oncology surgeon from South Miami Gynecology Oncology Group who specializes in robotic single port surgeries, said, "The SPORT Surgical System performed beyond my expectations and I was able to complete a variety of critical surgical tasks with the necessary dexterity and precision through a single incision. The robotic instruments provided the necessary articulation, range of motion and rigidity along with 3D high-definition video on the flat panel monitor that allowed me to complete the surgery in a comfortable posture. This could be a game changer in gynecological surgery."

Eduardo Parra-Davila, M.D., a robotic colorectal surgeon at Florida Hospital who has trained thousands of surgeons worldwide on robotic surgery, commented, "Single port surgery without robotic assistance is not easy and yet it remains highly beneficial because of the desire to have fewer ports. It's all about robotic articulation delivered through a single incision that allows for the reach, necessary angles and multi-quadrant access to treat diseases in colorectal surgeries.

The SPORT Surgical System has the promise to become a valuable tool for all robotic surgeons looking to do single port surgery in the future."

Vipul Patel, M.D., a world-renowned robotic urology surgeon from the Global Robotics Institute at Florida Hospital and the only surgeon in the world to have completed 10,000 robotic prostatectomies, said, "Although multi-port robotic prostatectomy is currently the standard of care in urology, single port robotic surgery could be the next frontier in urology and other surgical disciplines. It was exciting for me to use Titan Medical's SPORT system at Florida Hospital Nicholson Center. The technological capabilities of the SPORT system are very encouraging and the early success in establishing feasibility is an important step in the right direction."

# About Florida Hospital Nicholson Center

For more than a decade, the Florida Hospital Nicholson Center has trained more than 50,000 physicians from around the globe on leading-edge clinical and surgical techniques. Utilizing state-of-the-art surgical suites and labs, plus advanced medical simulation robotics and learning centers, medical professionals can acquire and advance their skills in a highly collaborative surgical learning environment.

For more information, please visit the Nicholson Center website atwww.NicholsonCenter.com.

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#### TITAN MEDICAL PARTNERS WITH COLUMBIA UNIVERSITY MEDICAL CENTER FOR SPORT FEASIBILITY AND VALIDATION STUDIES

TORONTO (September 28, 2017) – Titan Medical Inc. ("Titan" or the "Company") (TSX:TMD) (OTCQB: TITXF) a medical device company focused on the design, development and commercialization of a robotic surgical system for application in minimally invasive surgery (MIS), announces it has entered into an agreement with Columbia University Medical Center for feasibility and validation studies to support regulatory application for its SPORT Surgical System. These studies, to be performed in Columbia's surgical simulation center, are expected to commence in the fourth quarter of 2017 and continue into 2018.

David McNally, President and CEO of Titan Medical, said, "We are honored to partner with another leading academic medical center in Columbia University Medical Center, a New York Presbyterian Hospital for continued feasibility and validation studies for the SPORT system. Considered as one of the leading U.S. Hospitals, Columbia University Medical Center provides global leadership in scientific research, health and medical education and patient care. Through this collaboration, Titan's SPORT system will be installed at the Roy and Diane Vagelos Education Center, a brand new state-of-the-art medical and graduate education center with full access to laboratory facilities as well as Columbia's multi-specialty and world-renowned surgeons."

"With the signing of this agreement, I am glad to announce that Titan has delivered on its critical milestone of establishing formal collaborations with three strategic centers of excellence. Following the agreements with Florida Hospital Nicholson Center, IHU Strasbourg and now, Columbia University Medical Center, we eagerly look forward to continuing the feasibility studies in the fourth quarter of 2017," added Mr. McNally.

Arnold Advincula, M.D., Chief of Gynecology (GYN) Specialty Surgery Division at Columbia, said, "Single port robotic surgery has tremendous potential to be the next frontier in GYN and other surgical specialties. We are excited to be partnering with Titan Medical in shaping the future of single port robotic surgery during critical development phases of their SPORT system. We have the expertise and facilities to provide valuable input during the development process."

# About the Columbia University Medical Center, New York, New York

<u>Columbia University Medical Center</u> provides international leadership in basic, preclinical, and clinical research; medical and health sciences education; and patient care. The medical center trains future leaders and includes the dedicated work of many physicians, scientists, public health professionals, dentists, and nurses at the College of Physicians and Surgeons, the Mailman School of Public Health, the College of Dental Medicine, the School of Nursing, the biomedical departments of the Graduate School of Arts and Sciences, and allied research centers and institutions. Columbia University Medical Center is home to the largest medical research enterprise in New York City and State and one of the largest faculty medical practices in the Northeast. The campus that Columbia University Medical Center shares with its hospital partner, New York-Presbyterian, is now called the Columbia University Irving Medical Center. For more information, visit <u>cume.columbia.edu</u> or <u>columbiadoctors.org</u>.

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Contacts:



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TITAN MEDICAL ANNOUNCES CLOSING OF CDN \$2.9 MILLION PRIVATE PLACEMENT LED BY GROUP OF U.S. ROBOTIC SURGEONS

TORONTO (October 20, 2017) – Titan Medical Inc. ("Titan" or the "Company") (TSX: TMD) (OTCQB: TITXF), a medical device company focused on the design, development and commercialization of a robotic surgical system for application in minimally invasive surgery ("MIS"), announces the closing of a private placement of 11,500,100 common shares at a price of CDN \$0.25 per share for gross proceeds of CDN \$2,872,421. Participants in the offering included more than a dozen robotic surgeons from the United States, as well as other investors.

The net proceeds will be used to fund continued development of the Company's SPORT Surgical System, as well as for working capital and other general corporate purposes.

David McNally, President and CEO of Titan Medical, said, "We are pleased to complete this surgeon-led private placement. We view the investment by experienced robotic surgeons as affirmation that our SPORT Surgical System will address a significant underserved segment of the multibillion-dollar market for abdominal surgeries performed with robotic technology, and serves as a proxy for our product's commercial potential."

John D. Adams Jr., M.D., a urologist and an experienced robotic surgeon who practices at Mississippi Urology Clinic, PLLC in Jackson, Mississippi, commented "Our group of surgeon investors from around the country shares great optimism for the promising future of single-port robotic surgery and view it as the next logical advancement in the evolution of minimally invasive surgery. Surgeon investors representing our group met with Titan Medical's executive team and operated an advanced prototype SPORT Surgical System. We collectively share tremendous excitement for the potential clinical benefits of the multi-articulating, single-incision technology, and the company's strategic plans for commercialization. Initial trials conducted at Florida Hospital Nicholson Center have contributed to our group's growing enthusiasm for the SPORT system. Observations by group members and surgeon feedback from these trials indicate the performance exceeded expectations and the platform's capabilities may be far greater than originally anticipated."

The offering and sale of shares was completed pursuant to exemptions from prospectus and registration requirements in the United States, Canada and other jurisdictions and the shares will be subject to a 4-month hold in Canada and applicable resale restrictions in the United States.

#### About Titan Medical Inc.

Titan Medical Inc. is a Canadian public company focused on research and development through to the planned commercialization of computer-assisted robotic surgical technologies for application in minimally invasive surgery. The Company is currently developing the SPORT Surgical System, a single-port robotic surgical system. The SPORT Surgical System is comprised of a surgeon-controlled patient cart that includes a 3D high definition vision system and multi-articulating instruments for performing MIS procedures, and a surgeon workstation that provides the surgeon with an advanced ergonomic interface to the patient cart and a 3D endoscopic view inside the patient's body during MIS procedures. With the SPORT SurgicalSystem, the Company aims to pursue a broad set of surgical indications, including general abdominal, gynecologic and urologic procedures.

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Securities Act ("U.S. Persons"), except in compliance with the registration requirements of theU.S. Securities Act and applicable state securities requirements or pursuant to exemptions therefrom. This press release does not constitute an offer to sell or a solicitation of an offer to buy any of the Company's securities to, or for the account or benefit of, persons in the United States or U.S. Persons.

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# CONTACT INFORMATION

TITAN MEDICAL.

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#### TITAN MEDICAL AND COLUMBIA UNIVERSITY MEDICAL CENTER ANNOUNCE THE SUCCESSFUL INSTALLATION OF TITAN'S SPORT SURGICAL SYSTEM

TORONTO (October 23, 2017) – Titan Medical Inc. ("Titan" or the "Company") (TSX:TMD) (OTCQB: TITXF), a medical device company focused on the design, development and commercialization of a robotic surgical system for application in minimally invasive surgery ("MIS"), and Columbia University Medical Center announce the installation of Titan Medical's SPORT Surgical System at Columbia's simulation training facility in New York City. This is the second U.S. installation of the SPORT Surgical System for preclinical feasibility and validation studies and the first at an academic medical center. These studies are expected to commence at Columbia during the current quarter.

David McNally, President and CEO of Titan Medical, said, "We are pleased to announce the second of three installations planned in U.S. and European Centers of Excellence in 2017. This is our first installation at an academic medical center, which is strategically important to Titan Medical as we continue to demonstrate feasibility and validate SPORT. We are excited for the opportunity to work with Columbia's world-renowned surgeon faculty who will provide valuable feedback on system performance and procedural applications. We expect to continue preclinical feasibility and validation studies in a variety of surgical disciplines at Columbia with the intention of demonstrating the utility and versatility of SPORT."

Arnold Advincula, M.D., Chief of Gynecologic Specialty Surgery at Columbia University and an expert in robotic surgery, said, "With this installation of the SPORT Surgical System we expect to explore the potential of single port robotic surgery in gynecology and other surgical disciplines in a preclinical environment. Single port robotic surgery makes sense for the growing number of gynecologic patients seeking clinically-effective surgery delivered with optimal cosmesis and less pain. We are excited to support Titan Medical in evaluating feasibility and validating the anticipated benefits of the SPORT Surgical System."

# About the Columbia University Medical Center, New York, New York

<u>Columbia University Medical Center</u> provides international leadership in basic, preclinical and clinical research; medical and health sciences education; and patient care. The medical center trains future leaders and includes the dedicated work of many physicians, scientists, public health professionals, dentists and nurses at the College of Physicians and Surgeons, the Mailman School of Public Health, the College of Dental Medicine, the School of Nursing, the biomedical departments of the Graduate School of Arts and Sciences, and allied research centers and institutions. Columbia University Medical Center is home to the largest medical research enterprise in New York City and State and one of the largest faculty medical practices in the Northeast. The campus that Columbia University Medical Center shares with its hospital partner, New York-Presbyterian, is now called the Columbia University Irving Medical Center. For more information, visit <u>cumc.columbia.edu</u> or <u>columbiadoctors.org</u>.

#### About Titan Medical Inc.

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# TITAN MEDICAL RECEIVES CDN \$8.4 MILLION FROM WARRANT EXERCISE

TORONTO (October 26, 2017) – Titan Medical Inc. ("Titan" or the "Company") (TSX:TMD) (OTCQB: TITXF), a medical device company focused on the design, development and commercialization of a robotic surgical system for application in minimally invasive surgery ("MIS"), announces that since September 26, 2017, the Company has received CDN \$8,440,177 in financing proceeds from the exercise of share purchase warrants. As of October 25, 2017, 42,622,290 common shares have been issued through the exercise of 40,911,666 warrants at CDN \$0.20 per share, 5,000 warrants at CDN \$0.40 per share, and 1,705,624 broker warrants at CDN \$0.15 per share.

David McNally, President and CEO of Titan Medical, said, "The early exercise of these warrants provides us with additional capital that we will use to fund continuing preclinical feasibility and validation studies at our U.S. and European Centers of Excellence, and development of our SPORT Surgical System. We expect that the funds from the warrant exercises, along with funds from the recently-announced surgeon-led private placement, will sufficiently finance our operations through the end of 2017."

No commissions or placement fees have been paid related to this warrant exercise.

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TITAN MEDICAL ANNOUNCES FINAL CLOSING OF CDN \$3.3 MILLION PRIVATE PLACEMENT LED BY GROUP OF U.S. ROBOTIC SURGEONS

TORONTO (October 31, 2017) – Titan Medical Inc. ("Titan" or the "Company") (TSX: TMD) (OTCQB: TITXF), a medical device company focused on the design, development and commercialization of a robotic surgical system for application in minimally invasive surgery ("MIS"), announces, following the initial closing on October 20, 2017, the Company completed the final closing of a private placement of 13,385,900 total common shares at a price of CDN \$0.25 per share for total gross proceeds of CDN \$3,343,416. Participants in the offering included more than a dozen robotic surgeons from the United States, as well as other investors.

The net proceeds will be used to fund continued development of the Company's SPORT Surgical System, as well as for working capital and other general corporate purposes.

The offering and sale of shares was completed pursuant to exemptions from prospectus and registration requirements in the United States, Canada and other jurisdictions and the shares will be subject to a 4-month hold in Canada and applicable resale restrictions in the United States.

#### **Related Party Transaction**

An aggregate of 785,800 Common Shares were issued to insiders of the Company under the Offering for gross proceeds of \$196,450, which included certain of the Company's directors. Each insider subscription constitutes a "related party transaction" pursuant to Multilateral Instrument 61-101 – *Protection of Minority Security Holders in Special Transactions* ("**MI 61-101**"). In completing the insider subscriptions, the Company relied on the exemptions from the formal valuation and minority shareholder approval requirements of MI 61-101 set forth in sections 5.5(a) and 5.7(a) of MI 61-101, as the aggregate value of the insider subscription does not exceed 25% of the market capitalization of the Company.

The Company did not file a material change report more than 21 days before the expected closing of the Offering due to the limited time between the launch of the offering and the Closing.

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# CONTACT INFORMATION

LHA Investor Relations Kim Sutton Golodetz (212) 838-3777 kgolodetz@lhai.com or Bruce Voss (310) 691-7100 bvoss@lhai.com

###

# Item 1 Name and Address of Company

Titan Medical Inc. (the **"Company"** or **"Titan"**) 170 University Avenue Suite 1000 Toronto, Ontario M5H 3B3

# Item 2 Date of Material Change

October 20, 2017 and October 30, 2017

# Item 3 News Releases

The press releases attached as Schedule "A" were disseminated through Marketwired on October 20, 2017 and October 31, 2017 with respect to the material change.

### Item 4 Summary of Material Change

The Company completed a non-brokered private placement of aggregate 13,385,900 common shares in the capital of the Company (the '**Private Placement**') for aggregate gross proceeds of CDN\$3,343,416 to subscribers in Canada, the United States and Europe. The closing of the Private Placement occurred in two tranches, the first of which closed on October 20, 2017 and the second of which closed on October 30, 2017.

| Item 5                                                  | Full Description of Material Change                         |
|---------------------------------------------------------|-------------------------------------------------------------|
| 5.1                                                     | Full Description of Material Change                         |
| Please see the press releases attached as Schedule "A". |                                                             |
| 5.2                                                     | Disclosure for Restructuring Transactions                   |
| Not applicable.                                         |                                                             |
| Item 6                                                  | Reliance on subsection 7.1(2) of National Instrument 51-102 |
| Not applicable.                                         |                                                             |
| Item 7                                                  | Omitted Information                                         |
| Not applicable.                                         |                                                             |
|                                                         |                                                             |

# Item 8 Executive Officer

The following executive officer is knowledgeable about the material change and may be contacted about this report:

Stephen Randall Chief Financial Officer (416) 548-7522 (ext. 152)

Email:stephen@titanmedicalinc.comWebsite:www.titanmedicalinc.com

# Item 9 Date of Report

October 31, 2017.

Schedule "A"



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For more information, please visit the Company's website at www.titanmedicalinc.com.

## Forward-Looking Statements

This news release contains "forward-looking statements" which reflect the current expectations of management of the Company's future growth, results of operations, performance and business prospects and opportunities. Wherever possible, words such as "may", "would", "could", "will", "anticipate", "believe", "plan", "expect", "intend", "estimate", "potential for" and similar expressions have been used to identify these forward-looking statements. These statements, including statements with respect to the use of the net proceeds of the Offering and the anticipated listing of the Common Shares on the TSX, reflect management's current beliefs with respect to future events and are based on information currently available to management. Forward-looking statements involve significant risks, uncertainties and assumptions. Many factors could cause the Company's actual results, performance or achievements to be materially different from any future results, performance or achievements that may be expressed or implied by such forward-looking statements, including, without limitation, those listed in the "Risk Factors" section of the Company's Annual Information Form dated March 31, 2017 (which may be viewed at www.sedar.com). Should one or more of these risks or uncertainties materialize, or should assumptions underlying the forward-looking statements may vary materially from those expressed or implied by the forward-looking statements contained in this news release. These factors should be considered carefully, and prospective investors should not place undue reliance on the forward-looking statements. Although the forward-looking statements contained in the news release are based upon what management currently believes to be reasonable assumptions, the Company cannot assure prospective investors that actual results, performance or achievements will be consistent with these forward-looking statements.

#### **U.S. Securities Law Caution**

The securities described herein have not been, and will not be, registered under the United States Securities Act of 1933, as amended (the "U.S. Securities Act"), or any state securities laws, and accordingly, may not be offered or sold to, or for the account or benefit of, persons in the United States or "U.S. persons," as such term is defined in Regulation S promulgated under the U.S. Securities Act ("U.S. Persons"), except in compliance with the registration requirements of the U.S. Securities Act and applicable state securities requirements or pursuant to exemptions therefrom. This press release does not constitute an offer to sell or a solicitation of an offer to buy any of the Company's securities to, or for the account or benefit of, persons in the United States or U.S. Persons.

Neither TSX nor its Regulation Services Provider (as that term is defined in the policies of the TSX) accepts responsibility for the adequacy or accuracy of this release.

# CONTACT INFORMATION

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TITAN MEDICAL.

170 University Avenue • Suite 1000 Toronto, Ontario, Canada M5H 3B3 •Tel: 416.548.7522 info@titanmedicalinc.com • www.titanmedicalic.com

# TITAN MEDICAL TO HOLD BUSINESS UPDATE CONFERENCE CALL ON NOVEMBER 13, 2017

TORONTO (November 6, 2017) – Titan Medical Inc. ("Titan" or the "Company") (TSX: TMD) (OTCQB: TITXF), a medical device company focused on the design, development and commercialization of a robotic surgical system for application in minimally invasive surgery ("MIS"), announces that management will host a conference call on Monday, November 13, 2017 at 4:30 p.m. Eastern time to provide a business update on Titan Medical's SPORT Surgical System.

To access the conference call, the dial-in numbers are (866) 595-8403 (U.S. and Canada toll free), and (706) 758-9979 (International). All listeners should provide the operator with the following conference ID: 4898477.

Following the conclusion of the conference call, a replay will be available through November 19, 2017 and can be accessed by dialing (855) 859-2056 (U.S. and Canada toll free), (404) 537-3406 (International). All listeners should provide the operator with the following conference ID: 4898477. The call will also be archived on the Company's website for a period of time at <u>www.titanmedicalinc.com</u>.

## About Titan Medical Inc.

Titan Medical Inc. is a Canadian public company focused on research and development through to the planned commercialization of computer-assisted robotic surgical technologies for application in minimally invasive surgery. The Company is currently developing the SPORT Surgical System, a single-port robotic surgical system. The SPORT Surgical System is comprised of a surgeon-controlled patient cart that includes a 3D high definition vision system and multi-articulating instruments for performing MIS procedures, and a surgeon workstation that provides the surgeon with an advanced ergonomic interface to the patient cart and a 3D endoscopic view inside the patient's body during MIS procedures. With the SPORT Surgical System, the Company aims to pursue a broad set of surgical indications, including general abdominal, gynecologic and urologic procedures.

For more information, please visit the Company's website at www.titanmedicalinc.com.

## CONTACT INFORMATION

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#### Titan Medical Reports Third Quarter 2017 Financial Results

Company to hold business update conference call November 13 at 4:30 p.m Eastern time

TORONTO (November 9, 2017) – Titan Medical Inc. (TSX: TMD) (OTCQB: TITXF) ("Titan" or "the Company), a medical device company focused on the design and development of a robotic surgical system for application in minimally invasive surgery ("MIS"), announces financial results for the three and nine months ended September 30, 2017.

All financial results are reported in U.S. dollars, unless otherwise stated. The unaudited condensed interim financial statements and management's discussion and analysis for the period ended September 30, 2017 may be viewed on SEDAR at <u>www.sedar.com</u>.

David McNally, President and CEO of Titan Medical, said, "The third quarter of 2017 and recent weeks were exciting and productive, and built upon the work we have done to advance the development of our single-port robotic surgical system. We installed our first advanced prototype SPORT Surgical Systems at the Florida Hospital Nicholson Center and at Columbia University Medical Center, and commenced preclinical feasibility and validation studies. We are encouraged by the enthusiastic feedback we are receiving from the surgeons testing the SPORT Surgical System. We plan to commence additional studies with Columbia University Medical Center and our European center of excellence, Institut Hospitalo-Universitaire de Strasbourg, in the fourth quarter of 2017 and to continue with all three sites into 2018.

"Having successfully completed all our published milestones for the third quarter, we are confident we are on track to meet our fourth quarter milestones and will continue to execute as we enter 2018," Mr. McNally concluded.

## Operational highlights for the third quarter of 2017 and recent weeks include:

- On July 10, 2017 Titan announced a collaboration with Florida Hospital Nicholson Center in Celebration, Florida for feasibility and validation studies to support Titan's regulatory application for its SPORT Surgical System.
- On August 22, 2017 Titan announced the signing of an agreement with Institut Hospitalo- Universitaire de Strasbourg in France for feasibility and validation studies to support Titan's regulatory applications for the SPORT Surgical System.
- On September 18, 2017 Titan and Florida Hospital Nicholson Center announced the installation of Titan's SPORT Surgical System at the hospital's training facility. This was the first installation in the world for preclinical feasibility and validation studies of the SPORT Surgical System, a single-port robotic system.
- On September 25, 2017 Titan announced the successful completion of the world's first gynecologic, colorectal and urologic single-port procedures using its
  advanced prototype SPORT Surgical System at the Florida Hospital Nicholson Center. The first procedure performed by Dr. Ricardo Estape may be viewed
  via the Company's Website at here.

- On October 23, 2017 Titan and Columbia University Medical Center announced the installation of a SPORT Surgical System at Columbia's simulation training facility in New York City. This was the second U.S. installation of the SPORT Surgical System for preclinical feasibility and validation studies and the first at an academic medical center.
  - On November 2, 2017 Titan posted a video of a colorectal procedure in an animal model at Florida Hospital Nicholson Center. The procedure was performed by Dr. Eduardo Parra-Davila and may be viewed via the Company's Website at https://titanmedicalinc.com/technology/#videos.

## Financial highlights for the third quarter of 2017 include (all comparisons are with the third quarter of 2016, unless otherwise stated):

- Research and development expenses for the third quarter of 2017 were \$4,061,695, compared with \$3,429,550.
- Including adjustment for warrant liability, net and comprehensive loss for the third quarter of 2017 was \$13,902,817, compared with a net and comprehensive loss of \$1,659,863.
- The Company completed a public offering on June 29, for gross proceeds of \$5,576,357, followed by a second closing on July 21, for gross proceeds of \$1,328,871.
- On August 24, 2017 Titan announced that it has completed the equity conversion of Longtai Medical Inc.'s \$2.0 million deposit that was previously scheduled to be refunded to Longtai.
- On October 26, 2017 Titan announced that since September 26, 2017 the Company had received \$7.1 million in proceeds from the exercise of share purchase and broker warrants.
- On October 31, 2017 Titan completed a \$2,677,732 million private placement involving more than a dozen U.S. robotic surgeons, as well as other investors.
- Cash, cash equivalents and deposits with suppliers as of September 30, 2017 were \$7,268,903, compared with \$6,356,559 as of December 31, 2016.

## Conference call and webcast

Management will host a business update conference call on November 13, 2017 at 4:30 p.m. Eastern time to discuss the Company's progress with developing the SPORT Surgical System and upcoming milestones, and to answer questions. To access the conference call, the dial-in numbers are (866) 595-8403 (U.S. and Canada toll free), and (706) 758-9979 (International). All listeners should provide the operator with conference ID 4898477.

Following the conclusion of the conference call, a replay will be available through November 19, 2017 and can be accessed by dialing (855) 859-2056 (U.S. and Canada toll free) or (404) 537-3406 (International). All listeners should provide conference ID 4898477. The call will also be archived on the Company's website for a period of time at www.titanmedicalinc.com.

#### About Titan Medical Inc.

Titan Medical Inc. is focused on the design and development through the planned commercialization of a robotic surgical system for use in MIS. The Company's SPORT Surgical System, currently under development, includes a surgeon-controlled robotic platform that features multi-articulating instruments for performing MIS procedures through a single incision. The surgical system also includes a workstation that provides a surgeon with an advanced ergonomic interface to the robotic platform for controlling the instruments and provides a 3D high-definition endoscopic view inside a patient's body. The SPORT Surgical System is designed to enable surgeons to perform a broad set of general abdominal, gynecologic and urologic procedures. For more information, visit the Company's website at <u>www.titanmedicalinc.com</u>.

## Forward-Looking Statements

This news release contains "forward-looking statements" which reflect the current expectations of management of the Company's future growth, results of operations, performance and business prospects and opportunities. Wherever possible, words such as "may", "would", "could", "will", "anticipate", "believe", "plan", "expect", "intend", "estimate", "potential for" and similar expressions have been used to identify these forward-looking statements. These statements reflect management's current beliefs with respect to future events and are based on information currently available to management. Forward-looking statements involve significant risks, uncertainties and assumptions. Many factors could cause the Company's actual results, performance or achievements to be materially different from any future results, performance or achievements that may be expressed or implied by such forward-looking statements, including, without limitation, those listed in the "Risk Factors" section of the Company's Annual Information Form dated March 31, 2017 (which may be viewed at www.sedar.com). Should one or more of these risks or uncertainties materialize, or should assumptions underlying the forward-looking statements prove incorrect, actual results, performance or achievements may vary materially from those expressed or implied by the forward-looking statements. Although the forward-looking statements contained in this news release. These factors should be considered carefully, and prospective investors should not place undue reliance on the forward-looking statements. Although the forward-looking statements contained in the news release are based upon what management currently believes to be reasonable assumptions, the Company cannot assure prospective investors that actual results, performance or achievements will be consistent with these forward-looking statements.

## CONTACTS:

| LHA                 |
|---------------------|
| Kim Sutton Golodetz |
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| kgolodetz@lhai.com  |
| or                  |
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| bvoss@lhai.com      |
|                     |



# TITAN MEDICAL INC. Unaudited Condensed Interim Financial Statements Three and Nine Months Ended September 30, 2017 and 2016

(IN UNITED STATES DOLLARS)

|                                           | September 30,<br>2017 |    | December 31,<br>2016 |
|-------------------------------------------|-----------------------|----|----------------------|
| ASSETS                                    |                       |    |                      |
| CURRENT                                   |                       |    |                      |
| Cash and cash equivalents                 | \$<br>4,803,719       | \$ | 4,339,911            |
| Amounts receivable                        | 121,882               |    | 176,009              |
| Deposits (Note 6)                         | 2,465,184             |    | 2,016,648            |
| Prepaid expenses                          | 169,014               |    | 66,465               |
| Total Current Assets                      | <br>7,559,799         |    | 6,599,033            |
| Furniture and Equipment                   | 8,218                 |    | 9,350                |
| Patent Rights (Note 3)                    | 762,627               |    | 584,113              |
| TOTAL ASSETS                              | \$<br>8,330,644       | \$ | 7,192,496            |
| LIABILITIES                               |                       |    |                      |
| CURRENT                                   |                       |    |                      |
| Accounts payable and accrued liabilities  | \$<br>2,933,674       | \$ | 2,232,201            |
| Warrant liability (Note 2(b) and 5)       | 10,668,235            |    | 2,365,691            |
| Other Liabilities and Charges (Note 4(a)) | -                     |    | 2,000,000            |
| TOTAL LIABILTIES                          | <br>13,601,909        |    | 6,597,892            |
| SHAREHOLDERS' EQUITY                      |                       |    | , <u>,</u>           |
| Share Capital (Note 4(a))                 | 126,723,254           |    | 112,742,810          |
| Contributed Surplus                       | 4,732,006             |    | 3,707,432            |
| Warrants (Note 4 (b))                     | 741,917               |    | 855,800              |
| Deficit                                   | (137,468,442)         |    | (116,711,438)        |
| Total Equity                              | (5,271,265)           |    | 594,604              |
| TOTAL LIABILITIES & EQUITY                | \$<br>8,330,644       | \$ | 7,192,496            |
| Commitments (Note 6)                      | <br>- ) )*            | -  | .,.,.                |

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Commitments (Note 6) See accompanying notes to financial statements

## Approved on behalf of the Board:

Martin Bernholtz Director and Chairman David McNally President and Chief Executive Officer

# TITAN MEDICAL INC. Unaudited Condensed Interim Statements of Shareholders' Equity and Deficit For the Periods ended September 30, 2017 and 2016 (In U.S. Dollars)

|                                            | Share Capital<br>Number | 5  | Share Capital<br>Amount | C  | Contributed<br>Surplus | Warrants        | Deficit                |      | Total<br>Equity |
|--------------------------------------------|-------------------------|----|-------------------------|----|------------------------|-----------------|------------------------|------|-----------------|
| Balance - December 31, 2015                | 116,457,486             | \$ | 86,083,419              | \$ | 2,849,061              | \$<br>4,044,192 | \$ (93,387,942         | ) \$ | (411,270)       |
| Issued pursuant to agency agreement        | 47,814,121              |    | 24,920,296              |    |                        |                 |                        |      | 24,920,296      |
| Issued private placement                   | 130,839                 |    | 100,000                 |    |                        |                 |                        |      | 100,000         |
| Share issue expense                        |                         |    | (2,329,534)             |    |                        |                 |                        |      | (2,329,534)     |
| Warrants exercised during the period       | 70,000                  |    | 63,288                  |    |                        |                 |                        |      | 63,288          |
| Warrants expired during the period         |                         |    | 1,877,941               |    |                        | (1,877,941)     |                        |      | -               |
| Options exercised during the period        | 9,000                   |    | 7,432                   |    | (3.825)                |                 |                        |      | 3,607           |
| Stock based compensation vested            |                         |    |                         |    | 595,340                |                 |                        |      | 595,340         |
| Net and Comprehensive loss for the period  |                         |    |                         |    |                        |                 | (21,315,131            | )    | (21,315,131)    |
| Balance – September 30, 2016               | 164,481,446             | \$ | 110,722,842             | \$ | 3,440,576              | \$<br>2,166,251 | \$ (114,703,073        | ) \$ | 1,626,596       |
| • · · ·                                    |                         |    |                         |    |                        |                 |                        |      |                 |
| Balance - December 31, 2016                | 166,511,446             | \$ | 112,742,810             | \$ | 3,707,432              | \$<br>855,800   | \$ (116,711,438        | ) \$ | 594,604         |
| Issued pursuant to agency agreement        | 80,972,837              |    | 12,547,765              |    |                        |                 |                        |      | 12,547,765      |
| Issued private placement                   | 16,892,000              |    | 1,887,411               |    |                        |                 |                        |      | 1,887,411       |
| Warrant liability issued during the period |                         |    | (4,661,928)             |    |                        |                 |                        |      | (4,661,928)     |
| Share issue expense                        |                         |    | (926,709)               |    |                        |                 |                        |      | (926,709)       |
| Warrants exercised during the period       | 15,877,535              |    | 5,020,022               |    |                        |                 |                        |      | 5,020,022       |
| Warrants expired during the period         |                         |    | 113,883                 |    |                        | (113,883)       |                        |      | -               |
| Stock based compensation                   |                         |    |                         |    | 1,024,574              |                 |                        |      | 1,024,574       |
| Comprehensive loss for the period          |                         |    |                         |    |                        |                 | (20,757,004            | )    | (20,757,004)    |
|                                            |                         |    |                         |    |                        |                 |                        |      |                 |
| Balance – September 30, 2017               | 280,253,818             | \$ | 126,723,254             | \$ | 4,732,006              | \$<br>741,917   | <u>\$ (137,468,442</u> | ) \$ | (5,271,265)     |

See accompanying notes to financial statements.

# TITAN MEDICAL INC. Unaudited Condensed Interim Statements of Net and Comprehensive Loss For the Three and Nine Months ended September 30, 2017 and 2016 (In U.S. Dollars)

|                                                                                  |      | Three Months<br>Ended<br>September<br>30, 2017 |    | Nine Months<br>Ended<br>September<br>30, 2017 |    | Three Months<br>Ended<br>September<br>2016 |    | Nine Months<br>Ended<br>September<br>2016 |
|----------------------------------------------------------------------------------|------|------------------------------------------------|----|-----------------------------------------------|----|--------------------------------------------|----|-------------------------------------------|
| REVENUE                                                                          | \$   |                                                | \$ |                                               | ¢  |                                            | ¢  |                                           |
| <b>NEVENUE</b>                                                                   | ¢    | -                                              | ф  | -                                             | \$ | -                                          | \$ | -                                         |
| EXPENSES                                                                         |      |                                                |    |                                               |    |                                            |    |                                           |
| Amortization                                                                     |      | 2,527                                          |    | 13,312                                        |    | 6,271                                      |    | 18,367                                    |
| Consulting fees                                                                  |      | 132,753                                        |    | 403,186                                       |    | 160,066                                    |    | 419,923                                   |
| Stock based compensation (Note 4(b))                                             |      | 400,892                                        |    | 1,024,574                                     |    | 372,299                                    |    | 595,340                                   |
| Insurance                                                                        |      | 5,533                                          |    | 18,997                                        |    | 5,442                                      |    | 16,324                                    |
| Management salaries and fees                                                     |      | 623,819                                        |    | 1,870,574                                     |    | 397,543                                    |    | 1,207,517                                 |
| Marketing and investor relations                                                 |      | 77,479                                         |    | 243,316                                       |    | 73,753                                     |    | 333,995                                   |
| Office and general                                                               |      | 55,060                                         |    | 222,561                                       |    | 44,851                                     |    | 192,981                                   |
| Professional fees                                                                |      | 80,507                                         |    | 377,157                                       |    | 206,594                                    |    | 403,073                                   |
| Rent                                                                             |      | 26,974                                         |    | 77,228                                        |    | 25,463                                     |    | 71,378                                    |
| Research and development                                                         |      | 4,061,695                                      |    | 9,712,072                                     |    | 3,429,550                                  |    | 21,527,968                                |
| Travel                                                                           |      | 67,251                                         |    | 224,627                                       |    | 96,353                                     |    | 359,114                                   |
| Foreign exchange loss                                                            |      | 194,157                                        |    | 274,721                                       |    | 4,396                                      |    | 334,967                                   |
|                                                                                  |      | 5,728,647                                      |    | 14,462,325                                    |    | 4,822,581                                  |    | 25,480,947                                |
| FINANCE INCOME (COST)                                                            |      |                                                |    |                                               |    |                                            |    |                                           |
| Interest                                                                         |      | 3,356                                          |    | 8,764                                         |    | 1,172                                      |    | 5,438                                     |
| Gain (Loss) on change in fair value of warrant liability (Note 2(b), 4(a) and 5) |      | (8,099,030)                                    |    | (5,726,557)                                   |    | 3,277,044                                  |    | 4,623,658                                 |
| Warrant liability issue cost                                                     |      | (78,496)                                       |    | (576,886)                                     |    | (115,498)                                  |    | (463,280                                  |
|                                                                                  |      | (8,174,170)                                    |    | (6,294,679)                                   |    | 3,162,718                                  |    | 4,165,816                                 |
| NET AND COMPREHENSIVE LOSS FOR THE PERIOD                                        | \$   | 13,902,817542                                  | \$ | 20,757,004                                    | \$ | 1,659,863                                  | \$ | 21,315,131                                |
| BASIC AND DILUTED LOSS PER SHARE                                                 | \$   | (0.06)                                         | \$ | (0.10)                                        | \$ | (0.01)                                     | \$ | (0.15                                     |
| WEIGHTED AVERAGE NUMBER OF COMMON SHARES, Basic and Dil                          | uted | 252,301,894                                    |    | 204,009,846                                   |    | 149,254,997                                |    | 140,034,694                               |

See accompanying notes to financial statements

## TITAN MEDICAL INC. Unaudited Condensed Interim Statements of Cash Flows For the Three and Nine Months ended September 30, 2017 and 2016 (In U.S. Dollars)

|                                                          | -  | Three Months<br>ded September<br>30, 2017 | E  | Nine Months<br>Inded September<br>30, 2017 | E  | Three Months<br>Inded September<br>30, 2016 | E  | Nine Months<br>nded September<br>30, 2016 |
|----------------------------------------------------------|----|-------------------------------------------|----|--------------------------------------------|----|---------------------------------------------|----|-------------------------------------------|
| OPERATING ACTIVITIES                                     |    |                                           |    |                                            |    |                                             |    |                                           |
| Net loss for the period                                  | \$ | (13,902,817)                              | \$ | (20,757,004)                               | \$ | (1,659,863)                                 | \$ | (21,315,131)                              |
| Items not involving cash:                                |    |                                           |    |                                            |    |                                             |    |                                           |
| Amortization                                             |    | 2,527                                     |    | 13,312                                     |    | 6,271                                       |    | 18,367                                    |
| Stock based compensation                                 |    | 400,892                                   |    | 1,024,574                                  |    | 372,299                                     |    | 595,340                                   |
| Warrant liability – fair value adjustment                |    | 7,389,248                                 |    | 5,016,775                                  |    | (3,277,044)                                 |    | (4,623,658)                               |
| Warrant liability – foreign exchange adjustment          |    | 170,553                                   |    | 221,742                                    |    | (29,301)                                    |    | 199,912                                   |
| Loss on extinguishment of other liabilities              |    | 709,782                                   |    | 709,782                                    |    | -                                           |    | -                                         |
| Changes in non-cash working capital items:               |    |                                           |    |                                            |    |                                             |    |                                           |
| Amounts receivable, prepaid expenses and deposits        |    | 231,729                                   |    | (496,957)                                  |    | 3,782,977                                   |    | 942,719                                   |
| Accounts payable and accrued liabilities                 |    | (674,100)                                 |    | 701,473                                    |    | (5,726,853)                                 |    | (7,150,023)                               |
| Cash used in operating activities                        |    | (5,672,186)                               |    | (13,566,303)                               |    | (6,531,514)                                 |    | (31,332,474)                              |
| FINANCING ACTIVITIES                                     |    |                                           |    |                                            |    |                                             |    |                                           |
| Net proceeds from issuance of common shares and warrants |    | 3,719,490                                 |    | 14,220,805                                 |    | 7,147,831                                   |    | 27,675,499                                |
| Cash provided by financing activities                    |    | 3,719,490                                 |    | 14,220,805                                 |    | 7,147,831                                   |    | 27,675,499                                |
| INVESTING ACTIVITIES                                     |    |                                           |    |                                            |    |                                             |    |                                           |
| (Increase)/ decrease in furniture and equipment          |    | -                                         |    | (3,427)                                    |    | -                                           |    | (10,088)                                  |
| Costs of Patents                                         |    | (81,943)                                  |    | (187,267)                                  |    | (24,777)                                    |    | (131,179)                                 |
| Cash used in investing activities                        |    | (81,943)                                  |    | (190,694)                                  |    | (24,777)                                    |    | (141,267)                                 |
| INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS         |    | (2,034,639)                               |    | 463,808                                    |    | 591,540                                     |    | (3,798,242)                               |
| CASH AND CASH EQUIVALENTS, BEGINNING OF PERIOD           |    | 6,838,358                                 |    | 4,339,911                                  |    | 6,807,791                                   |    | 11,197,573                                |
| CASH AND CASH EQUIVALENTS, END OF PERIOD                 | \$ | 4,803,719                                 | \$ | 4,803,719                                  | \$ | 7,399,331                                   | \$ | 7,399,331                                 |
| CASH AND CASH EQUIVALENTS COMPRISE:                      |    |                                           |    |                                            |    |                                             |    |                                           |
| Cash                                                     | \$ | 2,556,533                                 | \$ | 2,556,533                                  | \$ | 96,805                                      | \$ | 96,805                                    |
| Money Market Fund                                        |    | 2,247,186                                 |    | 2,247,186                                  |    | 7,302,526                                   |    | 7,302,526                                 |
|                                                          | \$ | 4,803,719                                 | \$ | 4,803,719                                  | \$ | 7,399,331                                   | \$ | 7,399,331                                 |

See accompanying notes to financial statements

## 1. <u>DESCRIPTION OF BUSINESS</u>

#### **Nature of Operations:**

The Company's business continues to be in the research and development stage and is focused on the continued research and development of the next generation surgical robotic platform. In the near term, the Company will continue efforts toward a pre-clinical grade platform to be used for pre-clinical trials and satisfaction of appropriate regulatory requirements. Upon receipt of regulatory approvals, the Company will be in a position to transition from the research and development stage to the commercialization stage. The completion of these latter stages will be subject to the Company receiving additional funding in the future.

The Company is incorporated in Ontario, Canada in accordance with the Business Corporations Act.

The address of the Company's corporate office and its principal place of business is Toronto, Canada.

#### **Basis of Preparation**:

## (a) Statement of Compliance

These condensed interim financial statements for the three and nine months ending September 30, 2017 have been prepared in accordance with International Accounting Standard 34, Interim Financial Reporting ("IAS 34").

These condensed interim financial statements should be read in conjunction with the Company's 2016 annual financial statements which have been prepared in accordance with International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board ("IASB").

The condensed interim financial statements have been prepared using accounting policies consistent with those used in the Company's 2016 annual financial statements as well as any amendments, revisions and new IFRS, which have been issued subsequently and are appropriate to the Company.

The condensed interim financial statements were authorized for issue by the Board of Directors on November 9, 2017.

#### (b) Basis of Measurement

These condensed interim financial statements have been prepared on the historical cost basis except for the revaluation of the warrant liability, which is measured at fair value.

#### (c) Functional and Presentation Currency

These condensed interim financial statements are presented in United States dollars ("U.S."), which is the Company's functional and presentation currency.

## 2. <u>SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES</u>

## (a) Use of Estimates and Judgements

The preparation of financial statements in conformity with IAS 34, Interim Financial Reporting requires management to make estimates and assumptions that affect the reported amount of assets and liabilities and disclosure of provisions at the date of the condensed interim financial statements and the reported amount of expenses during the period. Financial statement items subject to significant judgement include, the measurement of stock based compensation and the fair value estimate of the initial measurement of new warrant liabilities and remeasurement of unlisted warrant liabilities. While management believes that the estimates and assumptions are reasonable, actual results may differ.

In assessing whether the going concern assumption is appropriate, management takes into account all available information about the future, which is at least, but not limited to twelve months from the end of the reporting period. The Company expects that approximately US \$35 million in incremental funding, will be required for the next 12 months, to maintain it's currently anticipated pace of development. The ability of the Company to arrange such funding will depend in part on prevailing capital market conditions and the business success of the Company. There can be no assurance that the Company will be successful in its efforts to arrange additional financing on terms satisfactory to the Company. If additional funding is not available, the pace of the Company's product development plan may be reduced. However, based on internal forecasts, Management believes that the Company has sufficient funds to meet its obligations under a reduced development plan, if necessary, for the ensuing twelve months.

#### Fair Value

The Black-Scholes model used by the Company to determine fair values of stock options and warrants was developed for use in estimating the fair value of the stock options and warrants. This model requires the input of highly subjective assumptions including future stock price volatility and expected time until exercise. Changes in the subjective input assumptions can materially affect the fair value estimate.

## (b) Warrant Liability

In accordance with IAS 32, because the exercise prices of new warrants issued, as well as the warrants issued from the exercise of broker warrants, are not a fixed amount as they are denominated in a currency (Canadian dollar) other than the Company's functional currency (U.S. dollar), the warrants are accounted for as a derivative financial liability. Each Warrant Liability is initially measured at fair value and subsequent changes in fair value are recorded through Net and Comprehensive Loss for the period. The fair value of these warrants was determined initially using a comparable warrant quoted in an active market, adjusted for differences in the terms of the warrant. At September 30, 2017, the Warrant Liability of listed warrants, was adjusted to fair value measured at the market price of the listed warrants. The unlisted warrants were adjusted to fair value using the Black-Scholes formula.

## (c) Fair Value Measurement

The accounting guidance for fair value measurements prioritizes the inputs used in measuring fair value into the following hierarchy:

Level 1 – Quoted prices (unadjusted) in active markets for identical assets or liabilities;

Level 2 – Inputs other than quoted prices included within Level 1 that are directly or indirectly observable:

Level 3 – Unobservable inputs in which little or no market activity exists, therefore requiring an entity to develop its own assumptions about the assumptions that market participants would use in pricing.

The fair value of our listed and unlisted Warrant liability is initially based on level 2 (significant observable inputs) and at September 30, 2017 is based on level 1, quoted prices (unadjusted) for listed warrants and level 2 for unlisted warrants.

## 3. <u>PATENT RIGHTS</u>

| Cost                             |               |
|----------------------------------|---------------|
| Balance at December 31, 2016     | \$<br>776,717 |
| Additions                        | 187,267       |
| Balance at September 30, 2017    | \$<br>963,984 |
| Amortization & Impairment Losses |               |
| Balance at December 31, 2016     | \$<br>192,604 |
| Amortization                     | 8,753         |
| Balance at September 30, 2017    | \$<br>201,357 |
|                                  |               |
| Net Book Value                   |               |
| At December 31, 2016             | \$<br>584,113 |
| At September 30, 2017            | \$<br>762,627 |
|                                  |               |

## 4. <u>SHARE CAPITAL</u>

| a) | Authorized: | unlimited number of common shares, no par value |
|----|-------------|-------------------------------------------------|
|    | Issued:     | 280,253,818 (December 31, 2016: 166,511,446)    |

Exercise prices of units, warrants and options are presented in Canadian currency as they are exercisable in Canadian dollars.

On July 21, 2017 Titan completed a second closing of an offering of securities made pursuant to an agency agreement dated June 26, 2017 between the Company and Bloom Burton Securities Inc. (the "Agent"). The Company sold an additional 11,117,000 Units under the Offering at a price of CDN \$0.15 per Unit for gross proceeds of approximately \$1,328,871 (\$1,201,528 net of closing costs including cash commission of \$93,021 paid in accordance with the terms of the agency agreement). Each Unit consisted of one Common Share of the Company and one Common Share purchase warrant, each warrant entitles the holder thereof to acquire one Common Share of the Company at an exercise price of CDN \$0.20 and expiring June 29, 2022. The warrants were valued at \$575,844 based on the value of comparable warrants at the time and the balance of \$753,027 was allocated to common shares.

Pursuant to the agency agreement in addition to the cash commission paid to the Agent, broker warrants were issued to the Agent which entitle the holder to purchase 778,190 Common Share at a price of CDN \$0.15 per share prior to expiry on June 29, 2019.

On June 29, 2017 Titan completed an offering of securities made pursuant to an agency agreement dated June 26, 2017 between the Company and Bloom Burton Securities Inc. (the "Agent"). The Company sold 48,388,637 Units under the Offering at a price of CDN\$0.15 per Unit for gross proceeds of approximately \$5,576,357 (\$4,838,002 net of closing cost including cash commission of \$382,689 paid in accordance with the terms of the agency agreement). Each Unit consisted of one Common Share of the Company and one Common Share purchase warrant, each warrant entitles the holder thereof to acquire one Common Share of the Company at an exercise price of CDN \$0.20 and expiring June 29, 2022. The warrants were valued at \$2,788,274 based on the value of comparable warrants at the time and the balance of \$2,788,083 was allocated to common shares.

Pursuant to the agency agreement, in addition to the cash commission paid to the Agent, broker warrants were issued to the Agent which entitle the holder to purchase 3,285,986 Common Shares at a price of CDN \$0.15 per share prior to expiry on June 29, 2019.

On March 16, 2017 Titan completed an offering of securities made pursuant to an agency agreement dated March 10, 2017 between the Company and Bloom Burton Securities Inc. (the "Agent"). The Company sold 21,467,200 Units under the Offering at a price of CDN\$0.35 per Unit for gross proceeds of approximately \$5,642,537 (\$5,039,817 net of closing cost including cash commission of \$394,316 paid in accordance with the terms of the agency agreement). Each Unit consisted of one Common Share of the Company and (i) one-half of one Common Share purchase warrant, each whole warrant entitling the holder thereof to acquire one Common Share of the Company at an exercise price of CDN \$0.40 and expiring March 16, 2019, and (ii) one-half of one Common Share purchase warrant, each whole warrant entitling the holder thereof to acquire on Common Share of the Company at an exercise price of CDN \$0.50 and expiring March 16, 2017, 80.50 and expiring March 16, 2021. The warrants were valued at \$1,297,810 based on the value of comparable warrants at the time and the balance of \$4,344,727 was allocated to common shares.

Pursuant to the agency agreement, in addition to the cash commission paid to the Agent, broker warrants were issued to the Agent which entitle the holder to purchase 1,500,155 Common Shares at a price of CDN \$0.35 per share prior to expiry on March 16, 2019.

On October 27, 2016 the over-allotment option to the Company's September 20, 2016 offering of 17,083,333 Units at a price of CDN \$0.60 was partially exercised and the Company sold an additional 2,030,000 Units at the Offering Price of CDN \$0.60 for additional gross proceed of \$909,846 (\$845,181 net of closing costs including cash commission of \$63,689 paid in accordance with the terms of the agency agreement). Each Unit comprised of one common share of Titan and one warrant. Each whole warrant entitles its holder to purchase one additional common share of Titan for CDN \$0.75 and will expire October 27, 2021. The warrants were valued at \$121,313 based on the market value at the time and the balance of \$788,533 was allocated to common shares.

Pursuant to the agency agreement, in addition to the cash commission paid to the Agent, broker warrants were issued to purchase 142,100 Units. Each broker warrant entitles the holder thereof to acquire one common share of the Company at the price of CDN \$0.60 for a period of 24 months following the closing date.

On September 20, 2016 Titan completed an offering of securities pursuant to an agency agreement dated September 13, 2016 between the Company, and Bloom Burton & Co. Limited and Echelon Wealth Partners Inc. (the "Agents"). The Company sold 17,083,333 Units under the Offering at a price of CDN \$0.60 per Unit for gross proceeds of \$7,749,000 (\$6,951,987 net of closing costs including cash commission of \$528,668 paid in accordance with the terms of the agency agreement). Each Unit comprised of one common share of Titan and one warrant. Each whole warrant entitles its holder to purchase one additional common share of Titan for CDN \$0.75 and will expire September 20, 2021. The warrants were valued at \$1,162,350 using a comparable warrant quoted in an active market, adjusted for differences in the terms of warrant and the balance of \$6,586,650 was allocated to common shares.

Pursuant to the agency agreement, in addition to the cash commission paid to the Agent, broker warrants were issued to purchase 1,165,494 Units. Each broker warrant entitles the holder thereof to acquire one Unit of the Company at the price of CDN\$0.60 for a period of 24 months following the closing date. Each Unit consists one common share of the Company and one common share purchase warrant. Each purchase warrant entitles the holder thereof to acquire one Share of the Company at an exercise price of CDN \$0.75 which expire September 20, 2021.

On April 14, 2016 the over-allotment option to the Company's March 31, 2016 offering of 15,054,940 Units at a price of CDN \$1.00 per Unit was exercised in full and the Company sold an additional 2,258,241 Units at the Offering Price of CDN \$1.00 for additional gross proceeds of \$1,759,396 (\$1,633,407 net of closing costs including commission of \$123,158 paid in accordance with the terms of the agency agreement). Each Unit comprised of one common share of Titan and one warrant. Each whole warrant entitles its holder to purchase one additional common share of Titan for CDN\$1.20 and will expire April 14, 2021. The warrants were valued at \$290,300 using a comparable warrant quoted in an active market, adjusted for differences in the terms of warrant and the balance of \$1,469,096 was allocated to common shares.

Pursuant to the agency agreement, in addition to the cash commission paid to the Agent, broker warrants were issued to purchase 158,076 Units. Each broker warrant entitles the holder thereof to acquire one Unit of the Company at the price of CDN\$1.00 for a period of 24 months following the closing date. Each Unit consists one common share of the Company and one common share purchase warrant. Each purchase warrant entitles the holder thereof to acquire one Share of the Company at an exercise price of CDN \$1.20 which expire April 14, 2021.

## 4. <u>SHARE CAPITAL</u> (continued)

On March 31, 2016 Titan completed an offering of securities pursuant to an agency agreement dated March 24, 2016 between the Company and Bloom Burton & Co. Limited (the "Agent"). The Company sold 15,054,940 Units under the Offering price of CDN\$1.00 per Unit for gross proceeds of approximately \$11,607,359 (\$10,571,919 net of closing costs including cash commission of \$796,324 paid in accordance with the terms of the agency agreement). Each Unit comprised of one common share of Titan and one warrant. Each whole warrant entitles its holder to purchase one additional common share of Titan for CDN\$1.20 and will expire March 31, 2021. The warrants were valued at \$1,741,104 using a comparable warrant quoted in an active market, adjusted for differences in the terms of warrant and the balance of \$9,866,255 was allocated to common shares.

Pursuant to the agency agreement, in addition to the cash commission paid to the Agent, broker warrants were issued to purchase 1,032,845 Units. Each broker warrant entitles the holder thereof to acquire one Unit of the Company at the price of CDN\$1.00 for a period of 24 months following the closing date. Each Unit consists of one common share of the Company and one common share purchase warrant. Each purchase warrant entitles the holder thereof to acquire one Share of the Company at an exercise price of CDN \$1.20 which expire March 31, 2021.

On February 23, 2016 the over-allotment option in connection with the February 12, 2016 completed public offering of 11,670,818 Units had been exercised in full. The company sold an additional 1,746,789 Units at the offering price of CDN\$0.90 per Unit for gross proceeds to Titan of approximately \$1,139,937 (\$1,029,605 net of closing costs including cash commission of \$79,796 paid in accordance with the terms of the agency agreement). Each Unit consists of one common share of the Company and one common share purchase warrant. Each whole warrant entitles the holder thereof to acquire one Share of the Company at an exercise price of CDN \$1.00 which expire February 23, 2021. The warrants were valued at \$215,321 using a comparable warrant quoted in an active market, adjusted for differences in the terms of warrant and the balance of \$924,616 was allocated to common shares.

On February 12, 2016 Titan completed an offering of securitiesmade pursuant to an agency agreement dated February 9, 2016 between the Company and Bloom Burton & Co. Limited (the "Agent"). The Company sold 11,670,818 Units under the Offering at a price of CDN \$0.90 per Unit for gross proceeds of approximately \$7,592,101 (\$6,844,046 net of closing costs including cash commission of \$516,622 paid in accordance with the terms of the agency agreement). Each Unit consists of one common share of the Company and one common share purchase warrant. Each whole warrant entitles the holder thereof to acquire one Share of the Company at an exercise price of CDN \$1.00 which expire February 12, 2021. The warrants were valued at \$1,518,420 using a comparable warrant quoted in an active market, adjusted for differences in the terms of warrant and the balance of \$6,073,681 was allocated to common shares.

Pursuant to the agency agreement, in addition to the cash commission paid to the Agent, broker warrants were issued to purchase 916,443 Units. Each broker warrant entitles the holder thereof to acquire one Unit of the Company at the price of CDN\$0.90 for a period of 24 months following the closing date. Each Unit consists of one common share of the Company and one common share purchase warrant. Each purchase warrant entitles the holder to acquire one common share of the Company at an exercise price of CDN\$1.00 for a period of 60 months from the date of closing.

On November 23, 2015 Titan closed a private placement of 4,290,280 common shares of Titan at a subscription price of CDN \$1.23 per common share for gross proceeds of \$4,000,000 with Longtai Medical Inc. Under the Agreement Titan granted to Longtai exclusive rights to negotiate for an exclusive marketing, sales and distribution agreement for Titan's SPORT Surgical System in the Asia Pacific region for a period of 183 days. Longtai paid to Titan \$2,000,000 as a deposit toward the Distributorship Agreement, which shall be repaid to Longtai in the event that the agreement is not entered into within the 183 day period. On August 24, 2016 the parties agreed to modify their previous three month extension to monthly progress reviews. Longtai will concurrently with the signing of the Distributorship Agreement, subscribe for and purchase an additional \$4,000,000 worth of Common Shares at a share issue price equal to the 5-day VWAP (less a 12.5% discount). If the Distributorship Agreement is signed and the second \$4,000,000 private placement is completed, Titan will retain \$1,400,000 of the Distributorship Deposit and repay \$600,000 to Longtai. On April 28, 2017 the Company announced that it had terminated negotiations with Longtai Medical Inc. for the marketing, sales and Distribution Agreement and the Company will repay the \$2,000,000 deposit to Longtai Medical Inc.

Subsequently on August 24, 2017 Titan completed a subscription agreement with Longtai for the equity conversion of Longtai's \$2.0 million deposit. Under the terms of the subscription agreement dated July 31, 2017, Titan issued to Longtai 16,892,000 Units at an assigned issue price of CDN \$0.15 per Unit. Each Unit consists of one common share and one common share purchase warrant, with each warrant exercisable for one Common Share at an exercise price of CDN \$0.20 per warrant and will expire August 24, 2022. The warrants were valued at \$ 822,372 based on the value of comparable warrants at the time. The common shares were valued at \$1,887,411 based on the market value on August 24, 2017 of CDN \$0.14. In addition, because the warrant and the common share were valued at fair value in accordance with International Financial Reporting Interpretations Committee Interpretation #19-Extinguishing Financial Liabilities ("IFRIC 19"), a loss of \$709,782 was incurred on extinguishment which is included in the Gain (Loss) on change in value of warrant liability in the unaudited condensed statement of net and comprehensive loss.

## b) Warrants, Stock Options and Compensation Options

Subject to shareholder approval, Titan has reserved and set aside up to 10% of the issued and outstanding shares of Titan for granting of options to employees, officers, consultants and advisors. At, September 30, 2017, 11,137,185 common shares (December 31, 2016: 9,448,895) are available for issue in accordance with the Company's stock option plan. The terms of these options are determined by the Board of Directors. A summary of the status of the Company's outstanding stock options as of September 30, 2017 and September 30, 2016 and changes during the periods ended on those dates is presented in the following table:

|                    |             | Nine Months Ended<br>September 30, 2017 |                                             |                            |    | nths Ended<br>er 30, 2016                   |  |  |
|--------------------|-------------|-----------------------------------------|---------------------------------------------|----------------------------|----|---------------------------------------------|--|--|
|                    | Number of   |                                         | /eighted-average<br>exercise price<br>(CDN) | Number of<br>stock options | V  | Veighted-average<br>exercise price<br>(CDN) |  |  |
| Balance, beginning | 7,202,250   | \$                                      | 1.10                                        | 2,897,763                  | \$ | 1.20                                        |  |  |
| Granted            | 10,984,837  | \$                                      | 0.52                                        | 4,660,117                  | \$ | 1.01                                        |  |  |
| Exercised          | -           | \$                                      | 0.00                                        | (9,000)                    | \$ | 0.56                                        |  |  |
| Expired/Forfeited  | (1,298,890) | \$                                      | 1.16                                        | (266,945)                  | \$ | 1.47                                        |  |  |
| Balance, ending    | 16,888,197  | \$                                      | 0.72                                        | 7,281,935                  | \$ | 1.11                                        |  |  |
|                    |             |                                         |                                             |                            |    |                                             |  |  |

The weighted-average remaining contractual life and weighted-average exercise price of options outstanding and of options exercisable as at September 30, 2017 are as follows:

|                    | Options Outstan   | nding            |                  |                    |                       |
|--------------------|-------------------|------------------|------------------|--------------------|-----------------------|
|                    | _                 | -                |                  | Options Exercisa   | able                  |
|                    |                   |                  | Weighted-average |                    | Weighted-             |
|                    |                   | Weighted-        | remaining        |                    | average               |
| Exercise           | Number            | average exercise | contractual life | Number             | <u>exercise price</u> |
| <u>price (CDN)</u> | outstanding       | price (CDN)      | <u>(years)</u>   | <u>exercisable</u> | <u>(CDN)</u>          |
| \$0.15             | 568,059           | \$0.15           | 6.41             | 368,059            | \$0.15                |
| \$0.16             | 91,206            | \$0.16           | 2.96             | 91,206             | \$0.15                |
| \$0.43             | 1,500,000         | \$0.43           | 6.36             | -                  | \$0.43                |
| \$0.50             | 500,000           | \$0.50           | 6.61             | -                  | \$0.50                |
| \$0.56             | 663,368           | \$0.56           | 0.84             | 663,368            | \$0.56                |
| \$0.57             | 8,325,572         | \$0.57           | 6.30             | -                  | \$0.57                |
| \$0.83             | 49,591            | \$0.83           | 0.47             | 49,591             | \$0.83                |
| \$0.96             | 305,107           | \$0.96           | 1.22             | 305,107            | \$0.96                |
| \$1.00             | 3,171,558         | \$1.00           | 3.90             | 1,716,183          | \$1.00                |
| \$1.02             | 183,587           | \$1.02           | 3.23             | 109,729            | \$1.02                |
| \$1.08             | 564,292           | \$1.08           | 3.33             | 564,292            | \$1.08                |
| \$1.39             | 19,746            | \$1.39           | 2.21             | 19,746             | \$1.39                |
| \$1.51             | 16,796            | \$1.51           | 2.87             | 16,796             | \$1.51                |
| \$1.72             | 461,139           | \$1.72           | 2.69             | 368,381            | \$1.72                |
| \$1.76             | 106,096           | \$1.76           | 1.43             | 106,096            | \$1.76                |
| \$1.94             | <u>362,080</u>    | \$1.94           | 1.64             | <u>362,080</u>     | \$1.94                |
|                    | <u>16,888,197</u> | \$0.72           |                  | <u>4,740,634</u>   | \$1.01                |

Options are granted to Directors, Officers, Employees and Consultants at various times. Options are to be settled by physical delivery of shares.

Stock options granted to non-employees, officers or directors are valued using the Black-Scholes pricing model, rather than on the basis of the fair value of the services received.

The Company does on occasion use the services of consultants. Options granted in these situations are valued on the basis of fair value of the services received.

| Grant date/Person entitled                                      | Number of Options | Vesting Conditions                                                                       | <b>Contractual life of Options</b> |
|-----------------------------------------------------------------|-------------------|------------------------------------------------------------------------------------------|------------------------------------|
| January 27, 2016, option grants to<br>Consultants and Employees | 644,292           | immediately                                                                              | 5 years                            |
| August 24, 2016, options granted to Directors and Consultants   | 1,129,206         | immediately                                                                              | 5 years                            |
| August 24, 2016, options granted to Employees                   | 2,886,619         | Vest as to 1/3 of the total number of Options granted,                                   | 5 years                            |
| anuary 17, 2017, option grants to Employees                     | 8,325,572         | every year from Option Date Vest as to 1/4 of the total number of Options granted,       | 7 years                            |
| February 7, 2017, option grants to<br>Employees                 | 500,000           | every year from Option Date Vest as to 1/4 of the total number of Options granted,       | 7 years                            |
| April 17, 2017, option grants to<br>Employees                   | 1,500,000         | every year from Option Date Vest as to 1/4 of the total number of Options granted,       | 7 years                            |
| September 7, 2017 options granted to Consultants                | 200,000           | every year from Option Date Half vest in 3 months<br>and the remaining half in 6 months. | 3 years                            |
| September 7, 2017, options granted to Directors                 | 368,059           | immediately                                                                              | 7 years                            |
| September 15, 2017, options granted to Consultants              | 91,206            | immediately                                                                              | 3 years                            |

# Inputs for Measurement of Grant Date Fair Values

The grant date fair value of all share based payment plans was measured based on the Black-Scholes formula. Expected volatility was estimated by considering historic average share price volatility. The inputs used in the measurement of fair values at grant date of the share based option plan are as follows:

|                                                     | , e             | nt, Employees, Medical<br>d Consultants |
|-----------------------------------------------------|-----------------|-----------------------------------------|
|                                                     | 2017            | 2016                                    |
| Fair Value at grant date (CDN)                      | \$0.08 - \$0.32 | \$0.284 - \$0.516                       |
| Share price at grant date (CDN)                     | \$0.15 - \$0.54 | \$0.679 - \$1.08                        |
| Exercise price (CDN)                                | \$0.15 - \$0.57 | \$1.00 - \$1.08                         |
| Expected Volatility                                 | 82.4% - 83.3%   | 73.34% - 79.67%                         |
| Option Life                                         | 3-4 years       | 3 years                                 |
| Expected dividends                                  | nil             | nil                                     |
| Risk-free interest rate (based on government bonds) | 0.89% - 1.63%   | 0.44% - 0.57%                           |
|                                                     |                 | 12                                      |

# 4. <u>SHARE CAPITAL</u> (continued)

The following is a summary of outstanding warrants included in Shareholder's Equity as at September 30, 2017 and September 30, 2016 and changes during the periods then ended.

|                                                                              | Nine Months<br>Ended September<br>30, 2017 |               | Nine Months<br>Ended September<br>30, 2016 |                 |
|------------------------------------------------------------------------------|--------------------------------------------|---------------|--------------------------------------------|-----------------|
|                                                                              | Number of<br>Warrants                      | Amount        | Number of<br>Warrants                      | Amount          |
| Opening Balance                                                              | 5,651,434                                  | \$<br>855,800 | 14,257,434                                 | \$<br>4,044,192 |
| Expired during the period Exercise Price of CDN\$2.00 Expiry June 21, 2016   |                                            |               | (5, 121, 500)                              | (1,877,941)     |
| Expired during the period Exercise Price of CDN\$1.776 Expiry March 14, 2017 | (390,729)                                  | (113,883)     |                                            | ,               |
| Ending Balance                                                               | 5,260,705                                  | \$<br>741,917 | 9,135,934                                  | \$<br>2,166,251 |

## 5. <u>WARRANT LIABILTY</u>

|                                               | Nine Months<br>Ended September<br>30, 2017 |               | Year Ended<br>December<br>31, 2016 |              |
|-----------------------------------------------|--------------------------------------------|---------------|------------------------------------|--------------|
|                                               | Number of<br>Warrants                      | Amount        | Number of<br>Warrants              | Amount       |
| Balance, beginning                            | 77,451,086                                 | \$ 2,365,691  | 27,676,965                         | \$ 2,137,751 |
| Issue of warrants expiring, February 12, 2021 |                                            |               | 11,670,818                         | 1,518,420    |
| Issue of warrants expiring, February 23, 2021 |                                            |               | 1,746,789                          | 215,321      |
| Issue of warrants expiring, March 31, 2021    |                                            |               | 15,054,940                         | 1,741,104    |
| Issue of warrants expiring April 14, 2021     |                                            |               | 2,258,241                          | 290,300      |
| Issue of warrants expiring September 20, 2021 |                                            |               | 17,083,333                         | 1,162,350    |
| Issue of warrant expiring October 27, 2017    |                                            |               | 2,030,000                          | 121,313      |
| Issue of warrants expiring March 16, 2019     | 10,733,600                                 | 572,326       |                                    |              |
| Issue of warrants expiring March 16, 2021     | 10,733,600                                 | 725,484       |                                    |              |
| Issue of warrants expiring June 29, 2022      | 59,505,637                                 | 3,364,118     |                                    |              |
| Issue of warrants expiring August 24, 2022    | 16,892,000                                 | 822,372       |                                    |              |
| Warrants exercised during the period          | (15,877,535)                               | (2,420,273)   | (70,000)                           | (9,654)      |
| Warrants expired during the period            | (20,664,770)                               | -             |                                    |              |
| Foreign exchange adjustment                   | -                                          | 221,742       | -                                  | 138,799      |
| Fair value adjustment                         | -                                          | 5,016,775     | -                                  | (4,950,013)  |
| Balance, ending                               | 138,773,618                                | \$ 10,668,235 | 77,451,086                         | \$ 2,365,691 |

In addition to the warrants listed above, at September 30, 2017, the Company has issued and outstanding, 8,979,289 broker unit warrants expiring between February 23, 2018 and June 29, 2019.

## 6. <u>COMMITMENTS</u>

As a part of its program of research and development around the SPORT Surgical System, the Company has outsourced certain aspects of the design and development to a U.S. based technology and development company. At September 30, 2017, \$2,992,258 in purchase orders remains outstanding. The Company also has on deposit with this same U.S. supplier \$2,080,537 to be applied against future invoices. During the quarter new commitments of a U.S supplier of technical services totaling \$510,800 were added. In addition, we maintain a deposit of \$384,647 with three other U.S based development companies.

The Company has entered into a developmental agreement with a supplier that will require payments to be made to them, in future years, based on the achievement, by the Company, of certain milestones which could total up to \$450,000.

## 7. <u>RELATED PARTY TRANSACTIONS</u>

During the nine months ended September 30, 2017, transactions between the Company and directors, officers and other related parties were related to compensation matters in the normal course of operations and are measured at the exchange amount, which is the amount of consideration established and agreed to by the related parties.

Compensation to the Executive Officers amounted to \$409,227 and \$1,165,759 for the three and nine months ended September 30, 2017 compared to \$187,333 and \$682,317 for the same period in 2016.

Officers and Directors of the Company control approximately 1.24% of the Company.

|                           | SeptemberMa30, 2017 | SeptemberMa30, 2017 |                  |      |
|---------------------------|---------------------|---------------------|------------------|------|
|                           | Number of Shares    | %                   | Number of Shares | %    |
| John Barker               | 450,632             | 0.16                | 250,632          | 0.15 |
| Martin Bernholtz          | 2,571,500           | 0.92                | 1,571,500        | 0.94 |
| John Hargrove             | -                   | -                   | 298,200          | 0.18 |
| David McNally             | 50,000              | 0.02                | -                | -    |
| Stephen Randall           | 357,307             | 0.13                | 102,800          | 0.06 |
| Reiza Rayman              | -                   | -                   | 4,357,117        | 2.62 |
| John Schellhorn           | 8,826               | 0.003               | -                | -    |
| Bruce Wolff               | 35,299              | 0.01                | 17,552           | 0.01 |
| TOTAL                     | 3,473,564           | 1.24                | 6,597,801        | 3.96 |
| Common Shares Outstanding | 280,253,818         | 100%                | 166,511,446      | 100% |

## 8. <u>SEGMENTED REPORTING</u>

The Company operates in a single reportable operating segment - the research and development of SPORT, the next generation of surgical robotic platform.

## 9. <u>SUBSEQUENT EVENTS</u>

On October 7, 2017, the company granted 33,150 incentive stock options to a consultant of the Company pursuant to its incentive stock option plan. These stock options vest immediately and are exercisable until October 7, 2022.

On October 10, 2017 the company issued 75,000 common shares of Titan to a consultant of the Company pursuant to a consultant agreement dated September 7, 2017

On October 31, 2017 Titan completed the final closing of a private placement led by a group of U.S robotic surgeons. 13,385,900 common shares of Titan were issued at a subscription price of CDN \$0.25 per common share for gross proceeds of \$2,677,732

Throughout the month of October 2017, 27,743,332 June 2022 warrants and 76,000 March 2019 warrants have been exercised for total proceeds of \$4,348,324. In addition, 3,411,248 broker warrants have been exercised for total proceeds of \$398,809.

#### TITAN MEDICAL INC.

## MANAGEMENT'S DISCUSSION AND ANALYSIS

#### FOR THE THREE AND NINE MONTHS ENDED SEPTEMBER 30, 2017

## (IN UNITED STATES DOLLARS)

## This Management's Discussion and Analysis ("MD&A") is dated November 9, 2017.

This MD&A provides a review of the performance of Titan Medical Inc. ("Titan" or the "Company") and should be read in conjunction with its unaudited condensed interim financial statements for the three and nine months ended September 30, 2017 (and the notes thereto) (the "Financial Statements"). The Financial Statements have been prepared in accordance with International Accounting Standards 34, Interim Financial Reporting ("IAS 34").

#### Internal Control over Financial Reporting

During the three and nine months ended September 30, 2017, no changes were made to the Company's internal control over financial reporting that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

## Forward-Looking Statements

This discussion includes certain statements that may be deemed "forward-looking statements". All statements in this discussion other than statements of historical facts that address future events, developments or transactions that the Company expects, are forward-looking statements. These forward-looking statements are made as of the date of this MD&A. Forward-looking statements are frequently, but not always, identified by words such as "expects", "expected", "expectation", "anticipates", "believes", "intends", "estimates", "predicts", "potential", "targeted", "plans", "possible", "milestones", "objectives" and similar expressions, or statements that events, conditions or results "will", "may", "could", or "should" occur or be achieved. Forward-looking statements that appear in this MD&A include: the Company is committed to developing its robotic surgical system with the objective of substantially improving upon minimally invasive surgery; the Company aims to pursue a broad set of surgical indications for the SPORT Surgical System, including general abdominal, gynecologic, urologic and colorectal procedures; the SPORT Surgical System is being developed with the goal of inserting the interactive multi-articulating instruments and the 3D high definition vision system into the patient's body cavity through a single incision; the Company continues to explore in-licensing opportunities for technologies that may be used in conjunction with the Company's robotic surgical system; the Company anticipates expanding its patent portfolio by filing patent applications as it progresses in the development of robotic surgical technologies and by licensing suitable technologies; the Company's current plan is to focus on the development and commercialization of the SPORT Surgical System at estimated incremental costs and according to the timeline as set forth in the table below; the Company has decided to build additional prototypes and develop more advanced instruments and training systems for expanded use for additional surgi

Although the Company believes the expectations expressed in such forward-looking statements are based on reasonable assumptions, such statements are not guarantees of future performance and actual results or developments may differ materially from those in the forward-looking statements. Forward-looking statements are statements about the future and are inherently uncertain, and actual results of the Company or other future events or conditions may differ materially from those reflected in the forward-looking statements due to a variety of risks, uncertainties and other factors, such as current global financial conditions, dependence on key personnel, conflicts of interest, obtaining of or cost of additional financing, strategic alliances, uncertainty as to product development and commercialization milestones, results of operations, competition, technological advancements, rapidly changing markets, uncertain market, uncertain acceptance of the Company's technology or intellectual property, infringement of intellectual property rights, scope and cost of insurance and uninsured risks, risks associated with the Company entering into additional long-term contractual arrangements, ability to license other intellectual property rights, government regulation, changes in government policy, changes in accounting and tax rules, regulatory inquiries, requirements and approvals, contingent liabilities, manufacturing and product defects, history of losses, stock price volatility, future share sales, limited operating history, fluctuating financial results and currency fluctuations. Please also refer to the risk factors set forth starting on page 16 of the Company's Annual Information Form for the 2016 fiscal year, available on SEDAR at www.sedar.com, which are expressly incorporated by reference into the MD&A.

There may be other factors that cause actions, events or results not to be as anticipated, estimated or intended. Other than as specifically required by law, the Company undertakes no obligation to update any forward-looking statement to reflect events or circumstances after the date on which such statement is made, or to reflect the occurrence of unanticipated events, whether as a result of new information, future events or results or otherwise. Investors are cautioned that any such statements are not guarantees of future performance and that actual results or developments may differ materially from those projected in the forward-looking statements. Accordingly, investors should not place undue reliance on forward-looking statements.

## History and Business

The Company is, and since July 28, 2008 has been, incorporated under the Business Corporations Act (Ontario).

The address of the Company's corporate office and its principal place of business is 170 University Avenue, Suite 1000, Toronto, Ontario, Canada M5H 3B3.

The Company was formed by way of amalgamation under the *Business Corporations Act* (Ontario) on July 28, 2008. Titan does not have any subsidiaries. The Company is committed to developing its robotic surgical system for use in connection with minimally invasive surgery (surgery without large incisions). From inception, the Company has focused on research and development toward its robotic surgical technology and building its intellectual property portfolio, trade secrets and scientific and technical knowledge base.

#### **Overall Performance**

The Company's business is focused on research and development through to the planned commercialization of computer-assisted robotic surgical technologies for application in minimally invasive surgery ("MIS"). The Company is currently developing the SPORT Surgical System, a single-port robotic surgical system. The SPORT Surgical System is comprised of a surgeon-controlled patient cart that includes a 3D high definition vision system and multi-articulating instruments for performing MIS procedures, and a surgeon workstation that provides the surgeon with an ergonomic interface to the patient cart and a 3D endoscopic view inside the patient's body during MIS procedures. With the SPORT Surgical System, the Company aims to pursue a broad set of surgical indications, including general abdominal, gynecologic and urologic procedures.

Development of the SPORT Surgical System has proceeded in response to "voice of customer" feedback and, consultation with medical technology development firms and input from the Company's Surgeon Advisory Board (the "Surgeon Advisory Board") comprised of key opinion leaders in targeted fields. This approach has allowed the Company to design a robotic surgical system that is intended to include the traditional advantages of robotic surgery, including 3D stereoscopic imaging and restoration of instinctive control, as well as new and enhanced features, including an advanced surgeon workstation incorporating a 3D high definition display providing a more ergonomically friendly user interface and a patient cart with enhanced instrument dexterity. Overall, the surgical system is designed to be adapted to the needs of the surgeon, rather than the surgeon having to adapt to the system.

The SPORT Surgical System patient cart is being developed to deliver interactive multi-articulating instruments and a 3D high definition vision system into a patient's abdominal body cavity through a single access port. The design of the patient cart includes an insertion tube of approximately 19 millimeter (mm) diameter, capable of insertion into the body cavity through a skin incision of approximately 25mm. The insertion tube includes a collapsible distal end portion incorporating a 3D high definition camera module that once inserted, is configured to deploy into a working configuration wherein the camera module and multi-articulating instruments can be controlled by a surgeon via the workstation. The reusable multi-articulating, snake-like instruments are designed to couple with sterile detachable single patient use robotic end effectors that would provide first use quality in every case and eliminate the reprocessing of the complete instrument. The use of resusable (for a specific number of uses) robotic instruments and single patient use end effectors is intended to minimize the cost per procedure. The patient cart is also designed to include a mast, a boom and wheels for optimal configurability for a variety of surgical indications and the ability to be maneuvered within the operating room, or redeployed within hospitals and surgical centers, where applicable.

As part of the development of the SPORT Surgical System, the Company plans to develop a robust training curriculum and post-training assessment tools for surgeons and surgical teams. The proposed training curriculum will likely include cognitive pre-training, psychomotor skills training, surgery simulations, live animal and human cadaver lab training, surgical team training, troubleshooting and an overview of safety. Post-training assessment will include validation of the effectiveness of those assessment tools.

The Company continuously evaluates its technologies under development for intellectual property protection through a combination of trade secrets and patent application filings. As of September 30, 2017, the Company had ownership of 18 patents and 42 patent applications. The Company anticipates expanding its patent portfolio by filing patent applications as it progresses in the development of robotic surgical technologies and by licensing suitable technologies. The Company previously entered into exclusive license agreements with several organizations including The Trustees of Columbia University. The license agreement with Columbia University provided the Company with certain rights for the development and commercialization of robotic surgical technology for use in single port surgery. On August 25, 2017, the Company gave notice of its intent to terminate the license agreement with Columbia University.

As part of its development and commercialization efforts, the Company has established certain milestones that it uses to assess its progress towards developing commercially viable robotic surgical technologies. These milestones relate to technology and design advancements as well as to targeted dates for preclinical studies and completion of regulatory submissions. To assess progress, the Company regularly tests and evaluates its technology. If such evaluations indicate technical defects or failure to meet cost or performance goals, the Company's commercialization schedule could be delayed and potential purchasers of its initial commercial systems may decline to purchase them or may choose to purchase alternative technologies.

Among other things, the future success of the Company is substantially dependent on continuing its research and development program, including the ongoing support of any outsourced research and development suppliers.

In addition to being capital intensive, research and development activities relating to the sophisticated technologies that the Company is developing are inherently uncertain as to future success and the achievement of desired results. If delays or problems occur during the Company's ongoing research and development activities, important financial and human resources may need to be diverted toward resolving such delays or problems. Further, there is material risk that the Company's research and development activities may not result in a functional, commercially viable product or one that is approved by regulatory authorities. See "Risk Factors".

The current prototype units incorporate previous design and engineering work completed on the SPORT Surgical System and will be used for preclinical live animal and human cadaver studies. The live animal and human cadaver studies are expected to provide information in support of anticipated regulatory submissions to the United States Food and Drug Administration ("FDA") for marketing clearance, and European regulatory authorities for the CE Mark.

The Company achieved its stated milestones for the first three quarters of 2017, including the finalization of user requirements for its first generation robotic surgical system during the first quarter, and selection of strategic facilities for preclinical studies in the US and Europe during the second quarter. The first location, Florida Hospital Nicholson Center, was announced in July. The other two facilities, Institut Hospitalo-Universitaire de Strasbourg (IHU) and Columbia University Medical Center were announced in August 2017 and September 2017, respectively. The first unit was installed at Florida Hospital Nicholson Center in September 2017 and the Company completed the first of the preclinical studies originally scheduled for completion in the fourth quarter of 2017. Concurrently, during the first and second quarters of 2017, testing and evaluation of the performance of subsystems of existing engineering verification prototype units was conducted, initial formative human factors studies were completed, and design changes were initiated based on subsystem performance and human factors evaluation. Also during the first half of 2017, the Company received notice of issuance of additional US and European patents.

4

## **Discussion of Operations**

The Company incurred a net and comprehensive loss of \$13,902,817 and \$20,757,004 during the three and nine months ended September 30, 2017, compared with a net and comprehensive loss of \$1,659,863 and \$21,315,131 for the three and nine months ended September 30, 2016, respectively. This decrease in net and comprehensive loss for the nine month period is primarily attributed to the reduced research and development activities in 2017, offset by the substantial increase in the fair value of warrant liabilities in 2017 compared to 2016. In addition, foreign exchange loss for the three and nine months ended September 30, 2017 was \$194,157 and \$274,721, compared to a loss of \$4,396 and \$334,967 for the comparable periods in 2016. This change in foreign exchange loss is largely attributed to the change in foreign exchange on warrant liabilities of \$199,854 and \$21,830 for the three and nine months periods, respectively.

During the three and nine months ended September 30, 2017, corporate efforts were ongoing related to furthering strategic product development and manufacturing relationships, carrying on efforts to secure the Company's intellectual property through the patent and licensing process, and continuing the development of the Company's robotic surgical system.

Research and development expenditures (all of which were expensed in the period) for the three and nine months ended September 30, 2017 and September 30, 2016, respectively, were as follows:

| Research and Development Expenditures                                             | Three Months<br>Ended<br>September 30,<br>2017 | Nine Months<br>Ended<br>September 30,<br>2017 | Three Months<br>Ended<br>September 30,<br>2016 | Nine Months<br>Ended<br>September 30,<br>2016 |
|-----------------------------------------------------------------------------------|------------------------------------------------|-----------------------------------------------|------------------------------------------------|-----------------------------------------------|
| Intellectual property development<br>License and royalties<br>Product development | \$ 5,000<br>4,05 <del>6</del> ,695             | \$ 15,000<br>5,000<br>9,692,072               | \$5,000<br>6,531<br>3,418,019                  | \$15,000<br>82,531<br>21,430,437              |
| Total                                                                             | <u>\$ 4,061,695</u>                            | <u>\$9,712,072</u>                            | <u>\$3,429,550</u>                             | <u>\$21,527,968</u>                           |

Research and development expenditures decreased in the nine months ended September 30, 2017 compared to the same period in 2016. This decrease was primarily due to a reduction in available funding in 2017 compared to 2016.

Excluding foreign exchange, general and administrative expenses for the three and nine months ended September 30, 2017, were \$1,472,795 and \$4,475,532 compared to \$1,388,635 and \$3,618,012 for the comparable period in 2016.

The loss attributed to the change in fair value of warrants for the three and nine months ended September 30, 2017 was \$8,099,030 and \$5,726,557 compared to gain of \$3,277,044 and \$4,623,658 for the same period at September 30, 2016. The change in loss of \$11,376,074 and \$10,350,215 for the three and nine months ended September 30, 2017 reflects a more significant increase in the fair value of warrants in 2017 compared to 2016 and the loss on extinguishment of \$709,782 regarding the conversion of the Longtai deposit to common shares in Q3 2017.

The Company realized \$3,356 and \$8,764 of interest income during the three and nine month periods ended September 30, 2017 and \$1,172 and \$5,438 in the three and nine month periods ended September 30, 2016.

For a discussion with regard to the status of the development of the SPORT Surgical System, please see 'Development Objectives'' below.

#### Summary of Quarterly Results

The following is selected financial data for each of the eight most recently completed quarters, derived from the Company's financial statements, calculated in accordance with IFRS.

|                                                     | Three<br>Months<br>Ended<br>September<br>30, 2017 | Three<br>Months<br>Ended<br>June 30,<br>2017 | Three<br>Months<br>Ended<br>March 31,<br>2017 | Three<br>Months<br>Ended<br>December<br>31, 2016 | Three<br>Months<br>Ended<br>September<br>30, 2016 | Three<br>Months<br>Ended<br>June 30,<br>2016 | Three<br>Months<br>Ended<br>March 31,<br>2016 | Three<br>Months<br>Ended<br>December<br>31, 2015 |
|-----------------------------------------------------|---------------------------------------------------|----------------------------------------------|-----------------------------------------------|--------------------------------------------------|---------------------------------------------------|----------------------------------------------|-----------------------------------------------|--------------------------------------------------|
| Net sales                                           | -                                                 | -                                            | -                                             | -                                                | -                                                 | -                                            | -                                             | -                                                |
| Net and<br>Comprehensive<br>Loss from<br>operations | \$13,902,817                                      | \$1,865,913                                  | \$4,988,274                                   | \$2,008,365                                      | \$1,659,863                                       | \$7,934,874                                  | \$11,720,394                                  | \$13,136,604                                     |
| Basic and<br>diluted loss per<br>share              | \$0.06                                            | \$0.01                                       | \$0.03                                        | \$0.01                                           | \$0.01                                            | \$0.05                                       | \$0.09                                        | \$0.12                                           |

Significant changes in key financial data from the three months ended December 30, 2015 to the three months ended September 30, 2017 reflect the ongoing development of the SPORT Surgical System. Also included is the requirement to revalue the Company's warrant liability at fair value, with subsequent changes recorded through net and comprehensive loss for the period.

## Liquidity and Capital Resources

The Company currently does not generate any revenue or income (other than interest income on its cash balances) and accordingly, it is (and it will be for the foreseeable future) dependent primarily upon equity financing for any additional funding required for development and operating expenses.

The ability of the Company to arrange such financing in the future will depend in part upon prevailing capital market conditions and the business success of the Company. There can be no assurance that the Company will be successful in its efforts to arrange additional financing on terms satisfactory to the Company. If additional financing is raised by the issuance of shares or convertible securities from treasury, control of the Company may change and shareholders may suffer additional dilution. If adequate funds are not available, or are not available on acceptable terms, the Company may not be able to take advantage of opportunities, or otherwise to continue its technology development program at its current pace.

The Company had \$4,803,719 of cash and cash equivalents on hand and accounts payable and accrued liabilities of \$2,933,674 excluding warrant liability, at September 30, 2017, compared to \$4,339,911 and \$4,232,201 respectively, at December 31, 2016. The Company's working capital as of September 30, 2017 was \$4,626,125 excluding warrant liability, compared to \$2,366,832, as of December 31, 2016.

Below is a table that sets out the various series of Titan warrants that were previously issued, using historic rates. The disclosure of the potential proceeds in the last column of the table below assumes all warrants are exercised on or before the expiry date. However, there is no assurance that any warrants will be exercised prior to their expiry.

|            | Issue Date         | Expiry Date        | Number<br>Issued | Number<br>Outstanding | Exercise<br>Price<br>(CDN \$) | Potential<br>Proceeds<br>(CDN \$) |
|------------|--------------------|--------------------|------------------|-----------------------|-------------------------------|-----------------------------------|
| TMD.WT.C   | March 13, 2013     | March 13, 2018     | 6,260,763        | 5,260,705             | \$1.25                        | 6,575,881                         |
| TMD.WT.F   | November 16, 2015  | November 16, 2020  | 7,012,195        | 7,012,195             | \$1.60                        | 11,219,512                        |
| TMD.WT.G   | February 12, 2016  | February 12, 2021  | 11,670,818       | 11,600,818            | \$1.00                        | 11,600,818                        |
| TMD.WT.G   | February 23, 2016  | February 12, 2021  | 1,746,789        | 1,746,789             | \$1.00                        | 1,746,789                         |
| TMD.WT.H   | March 31, 2016     | March 31, 2021     | 15,054,940       | 15,054,940            | \$1.20                        | 18,065,928                        |
| TMD.WT.H   | April 14, 2016     | March 31, 2021     | 2,258,241        | 2,258,241             | \$1.20                        | 2,709,889                         |
| TMD.WT.I   | September 20, 2016 | September 20, 2021 | 17,083,333       | 17,083,333            | \$0.75                        | 12,812,500                        |
| TMD.WT.I   | October 27, 2016   | September 20, 2021 | 2,030,000        | 2,030,000             | \$0.75                        | 1,522,500                         |
| NOT LISTED | March 16, 2017     | March 16, 2019     | 10,733,600       | 10,290,065            | \$0.40                        | 4,116,026                         |
| NOT LISTED | March 16, 2017     | March 16, 2021     | 10,733,600       | 10,733,600            | \$0.50                        | 5,366,800                         |
| NOT LISTED | June 29, 2017      | June 29, 2022      | 48,388,637       | 5,135,305             | \$0.20                        | 1,027,061                         |
| NOT LISTED | July 21, 2017      | June 29, 2022      | 11,117,000       | 11,117,000            | \$0.20                        | 2,223,400                         |
| NOT LISTED | August 24, 2017    | August 24, 2022    | 16,892,000       | 16,892,000            | \$0.20                        | 3,378,400                         |
| TOTAL      |                    |                    | 160,981,916      | 116,214,991           |                               | 82,365,504                        |

## **Development Objectives**

The Company uses a combination of internal resources and external development firms to execute the research, development and commercialization plan for the Company's robotic surgical system.

In the first quarter of 2016, in consultation with its advisors and development partners, the Company re-engineered and optimized its 2016 development plan. This was done partially in view of developments within the robotic surgery sector and published changes to the FDA guidelines, "Applying Human Factors and Usability Engineering to Medical Devices", issued February 3, 2016. The Company reviewed the FDA's new guidelines and incorporated additional testing procedures and documentation into its Human Factor and Usability Trials. As a result of changes, the Company previously announced that it expected total costs for it to reach submission of a 510(k) application to the FDA and into early commercialization, to be approximately US\$70 million. The amounts and timing of The Company's actual expenditures will depend upon numerous factors, including the status of its development and commercialization efforts and the amount of cash generated through any strategic collaborations into which it may enter.

A complete estimate of the timing and costs for development milestones beyond Q3 of 2018 are speculative. The Company does however estimate that a minimum of an additional US\$55 million will be required beyond the third quarter of 2017 in order to submit its 510(k) application to the FDA, apply for the CE Mark, and if successful with those efforts, proceed with early commercialization activities. However, given the uncertainty of, among other things, regulatory, the timing and number of preclinical studies (including live animal and human cadaver studies) performed, actual costs and development times may exceed management's current expectations and an accurate estimate of the future costs of the regulatory phases and development milestones beyond Q3 of 2018 is not possible at this time.

The Company's current plan is to raise sufficient financing and continue the development and commercialization of the SPORT Surgical System at estimated incremental costs, and according to the timeline, as set forth in the table below.

# Current Development Plan

The Company anticipates development costs through to the second half of 2018 to be as set out in the table below.

| Development Milestones                                                                                                                                                                             | Estimated Cost (in<br>U.S. million \$) | Schedule for<br>Milestone<br>Completion | Comments                                                                                |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|-----------------------------------------|-----------------------------------------------------------------------------------------|
| Complete human factors and usability studies                                                                                                                                                       |                                        | · •                                     | ·                                                                                       |
| Finalize user requirements for 1st generation robotic surgical system                                                                                                                              | 4.5                                    | Q1 2017                                 | Completed                                                                               |
| Select and confirm strategic facilities for preclinical studies in US and<br>Europe                                                                                                                | 0.5                                    | Q2 2017                                 | Completed                                                                               |
| Test and evaluate performance of subsystems of existing EV units                                                                                                                                   | 1.8                                    | Q2 2017                                 | Completed                                                                               |
| Complete initial formative human factors studies                                                                                                                                                   | 1.0                                    | Q2 2017                                 | Completed                                                                               |
| Initiate design changes based on subsystem performance and human factors evaluation                                                                                                                | 1.0                                    | Q2 2017                                 | Initiated on Schedule; Design<br>Changes in Process                                     |
| Complete and verify system design architecture, including<br>performance testing in laboratory environment and design of<br>surgeon simulation training modules                                    | 5.7(2)                                 | Q3 2017                                 | Constant                                                                                |
| <ul> <li>Implement design changes and retest system and subsystems</li> <li>Update Design History File and documentation for relevant<br/>modules of Company Quality Management Systems</li> </ul> |                                        |                                         | Completed<br>Completed                                                                  |
| ("QMS")                                                                                                                                                                                            |                                        |                                         |                                                                                         |
| <ul> <li>Complete initial requirements and architecture for surgeon<br/>simulation software and training program design, as required<br/>in preparation for FDA submittal</li> </ul>               |                                        |                                         | Completed                                                                               |
| Verify system performance in preclinical (live animal labs, swine),<br>while establishing clear regulatory pathways for US and Europe                                                              | 5.9(3)                                 | Q4 2017                                 |                                                                                         |
| - Complete and report on preclinical live animal (swine) studies at strategic facilities in US and Europe                                                                                          |                                        |                                         | Completed first of preclinical<br>studies in Q3, additional studies<br>scheduled for Q4 |
| <ul> <li>Confirm FDA and CE Mark pathways in coordination with<br/>regulatory authorities</li> </ul>                                                                                               |                                        |                                         | Correspondence with FDA and<br>European Notified Body has been<br>initiated             |

9

| Development Milestones                                                                                                                                                                                                                                                                                    | Estimated Cost (in<br>U.S. million \$) | Schedule for<br>Milestone<br>Completion | Comments |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|-----------------------------------------|----------|
| Complete software development, system design and update Design<br>History File for regulatory filing applications                                                                                                                                                                                         | 10.0(4)                                | Q1 2018                                 |          |
| Verify production system operation with clinical experts under<br>rigorous formal (summative) human factors evaluation under<br>simulated robotic manipulation exercises, and exercise completed<br>surgeon simulation software and training program                                                      | 9.5(5)                                 | Q2 2018                                 |          |
| Complete and document preclinical liveanimal (swine) surgery<br>studies that are representative of anticipated human surgeries for<br>FDA submittal                                                                                                                                                       | 9,5(5)                                 | Q3 2018                                 |          |
| Prepare and submit 510(k) application to FDA and prepare<br>technical file for CE Mark and submit to European Notified Body - Publish white papers on preclinical studies containing<br>evidence of system performance in live animal surgeries<br>that are representative of anticipated human surgeries | TBD(1)                                 | Q4 2018                                 |          |
| Anticipated receipt of FDA 510(k) clearance and CE Mark<br>Perform successful human surgeries at initial US and European<br>training centers                                                                                                                                                              | TBD(1)                                 | H1 2019<br>H2 2019                      |          |
| TOTAL                                                                                                                                                                                                                                                                                                     | TBD(1)                                 |                                         |          |

Notes:

(1) A specific cost for individual milestone completion cannot be estimated at this time.

(2) Includes research & development costs estimated at approximately US \$4.4 million, and general & administrative costs estimated at approximately US \$1.3 million.

(3) Includes research & development costs estimated at approximately US \$4.7 million, and general & administrative costs estimated at approximately US \$1.2 million.

(4) Includes research & development costs estimated at approximately US \$8.7 million, and general & administrative costs estimated at approximately US \$1.3 million.

(5) Includes research & development costs estimated at approximately US \$8.3 million, and general & administrative costs estimated at approximately US \$1.2 million.

Upon completion of the development of the SPORT Surgical System and following receipt of all applicable regulatory clearances in the United States and Europe, the Company intends to utilize a direct sales force and/or distribution partner(s) to initiate marketing of the SPORT Surgical System to hospitals.

Due to the nature of technology research and development, there is no assurance that these objectives will be achieved, and there can be no assurance with respect to the time or resources that may be required. The Company expects that additional specific milestones could be identified as the development of its SPORT Surgical System progresses, or existing milestones, budgets and the schedule for completion of each milestone may change depending on a number of factors including the results of the Company's development program, clarification of or changes to regulatory requirements, the availability of financing and the ability of development firms engaged by the Company to complete work assigned to them. The total costs to complete the development of the Company's SPORT Surgical System as referenced above are only an estimate based on current information available to the Company and cannot yet be determined with a high degree of certainty, and the costs may be substantially higher than estimated. Please see *"Forward-Looking Statements"* and *"Risk Factors"*.

Please also refer to the risk factors set forth starting on page 16 of the Company's Annual Information Form for the 2016 fiscal year, available on SEDAR at www.sedar.com.

#### Financings

#### Offerings to Date During Q4 2017

On October 20, 2017 and October 30, 2017, the Company completed a non-brokered private placement offering of aggregate 13,385,900 common shares, for aggregate gross proceeds of US \$2,677,732 (CDN\$3,343,416), to subscribers in Canada, the United States and Europe.

## Offerings During Q2 2017

On June 29, 2017, the Company completed an offering of securities (the "Offering") pursuant to an agency agreement (the "June Agency Agreement") dated June 26, 2017 between the Company and Bloom Burton Securities Inc. (the "Bloom Burton"). At the first closing of the Offering on June 29, 2017, the Company sold 48,388,637 units at a price of CDN \$0.15 per unit for gross proceeds of approximately \$5,576,357 (\$4,838,002 net of closing costs including cash commission of \$382,689 paid in accordance with the terms of the June Agency Agreement). Each unit consisted of one common share of the Company and one common share purchase warrant, each warrant entitles the holder thereof to acquire one common share of the Company at an exercise price of CDN \$0.20 and expires June 29, 2022. The warrants were valued at \$2,788,274 based on the value of comparable warrants at the time and the balance of \$2,788,083 was allocated to common shares. In addition to the cash commission paid to Bloom Burton, broker warrants were issued to Bloom Burton or its syndicate which entitle the holder to purchase 3,285,986 common shares at a price of CDN \$0.15 per share prior to expiry on June 29, 2019.

On July 21, 2017 Titan completed the second closing of the Offering pursuant to which the Company sold an additional 11,117,000 units at a price of CDN \$0.15 per unit for gross proceeds of approximately \$1,328,871 (\$1,201,528 net of closing costs including cash commission of \$93,021 paid in accordance with the terms of the June Agency Agreement). Each unit consisted of one common share of the Company and one common share purchase warrant, each warrant entitles the holder thereof to acquire one common share of the Company at an exercise price of CDN \$0.20 and expiring June 29, 2022. The warrants were valued at \$575,844 based on the value of comparable warrants at the time and the balance of \$753,027 was allocated to common shares.

Pursuant to the agency agreement, in addition to the cash commission paid to the Agent, broker warrants were issued to the Agent which entitle the holder to purchase 778,190 common shares at a price of CDN \$0.15 per share prior to expiry on June 29, 2019.

## Offerings During Q1 2017

On March 16, 2017, Titan completed an offering (the "March Offering") of securities made pursuant to an agency agreement dated March 10, 2017 (the "March Agency Agreement") between the Company and Bloom Burton. The Company sold 21,467,200 units under the Offering at a price of CDN\$0.35 per unit for gross proceeds of approximately \$5,642,537 (\$5,039,817 net of closing cost including cash commission of \$394,316 paid in accordance with the terms of the March Agency Agreement). Each unit consisted of one common share of the Company and (i) one-half of one common share purchase warrant, each whole warrant entitling the holder thereof to acquire one common share of the Company at an exercise price of CDN \$0.40 and expiring March 16, 2019, and (ii) one-half of one common share purchase warrant, each whole warrant entitling the holder thereof to acquire one common share of the Company at an exercise price of CDN \$0.50 and expiring March 16, 2021. The warrants were valued at \$1,297,810 based on the value of comparable warrants at the time and the balance of \$4,344,727 was allocated to common shares.

Pursuant to the March Agency Agreement, in addition to the cash commission paid to Bloom Burton, broker warrants were issued to Bloom Burton which entitle the holder to purchase 1,500,155 common shares at a price of CDN \$0.35 per share prior to expiry on March 16, 2019.

## Private Placements - Longtai Medical Inc.

On October 30, 2015, the Company entered into a letter agreement (the "Letter Agreement") with Longtai Medical Inc. ("Longtai"). Under the terms of the Letter Agreement, on November 23, 2015, Longtai subscribed for and purchased US \$4,000,000 worth of common shares under a private placement, at a subscription price of CDN \$1.23 per common share. In the Letter Agreement, the Company granted to Longtai exclusive rights to negotiate with the Company for an exclusive marketing, sales and distribution agreement for the Company's SPORT Surgical System in the Asia Pacific region (the "Distributorship Agreement") for a period of 183 days commencing at closing of the private placement. Additionally, Longtai paid to the Company US US \$2.0 million as a deposit toward the Distributorship Agreement ("Distributorship Deposit"), which is required to be repaid to Longtai in the event that the Distributorship Agreement is not entered into within such 183 day period. On May 24, 2016, the Company and Longtai to Longtai to negotiate the Distributorship Agreement and for the repayment of the Distributorship Deposit to Longtai, extending the negotiation period and the date for repayment of the Distributorship Deposit to August 19, 2016.

On August 24, 2016, the Company announced that it had agreed to extend the exclusive rights granted to Longtai to negotiate the Distributorship Agreement from the previous three month extension to monthly progress reviews. As of April 28, 2017, Titan announce that it had terminated its negotiations with Longtai and it would return the US \$2.0 million deposit to Longtai. Subsequently, on August 24, 2017, Titan completed a subscription agreement with Longtai for the equity conversion of Longtai's \$2.0 million distribution deposit. Under the terms of the subscription agreement dated July 31, 2017, Titan issued to Longtai 16,892,000 Units at an assigned issue price of CDN \$0.15 per Unit. Each Unit consists of one common share and one common share purchase warrant, with each warrant exercisable for one Common Share at an exercise price of CDN \$0.20 per warrant and will expire August 24, 2022. The warrants were valued at \$822,372 based on the value of comparable warrants at the time. The common shares were valued at \$1,887,411 based on the market value on August 24, 2017 of CDN \$0.14. In addition, because the warrant and the common share were valued at fair value in accordance with International Financial Reporting Interpretations Committee Interpretation #19-Extinguishing Financial Liabilities ("IFRIC 19"), a loss of \$709,782 was incurred on extinguishment which is included in the gain (Loss) on change in value of warrant liability in the unaudited condensed statement of net and comprehensive loss.

#### **Off-Balance Sheet Arrangements**

Other than for leased premises occupied by the Company, the Company does not utilize off balance sheet arrangements.

#### **Outstanding Share Data**

The following table summarizes the outstanding share capital as of the date of this MD&A:

| Type of Securities | Number of common shares issued or issuable<br>upon conversion |
|--------------------|---------------------------------------------------------------|
| Common shares      | 324,945,298                                                   |
| Stock options(1)   | 16,888,197                                                    |
| Warrants           | 116,214,991                                                   |
| Broker warrants(2) | 5,568,041                                                     |

Notes:

- (1) The Company has outstanding options enabling certain employees, directors, officers and consultants to purchase common shares. Please refer to note 4(b) of the Unaudited Condensed Interim Financial Statements for terms of such options.
- (2) Pursuant to the agency agreement in respect of the February 2016 offering, in addition to the cash commission paid to the agent for the offering, 916,443 broker warrants were issued to the agent. Each broker warrant entitles the holder thereof to acquire one unit of the Company at the price of CDN\$0.90 for a period of 24 months following the closing date. Each unit consists of one common share and one warrant. Each warrant entitles the holder to acquire one common share at an exercise price of CDN\$1.00 for a period of 60 months from the date of closing.

Pursuant to the agency agreement in respect of the March 2016 offering, in addition to the cash commission paid to Bloom Burton, 1,190,921 broker warrants were issued to the agent. Each broker warrant entitles the holder thereof to acquire one unit of the Company at the price of CDN \$1.00 for a period of 24 months following the closing date. Each unit consists of one common share and one warrant. Each warrant entitles the holder to acquire one common share at an exercise price of CDN \$1.20 per share for a period of 60 months from the date of closing.

Pursuant to the agency agreement in respect of the September 2016 offering, in addition to the cash commission paid to the agents, 1,307,594 broker warrants were issued to the agents. Each broker warrant entitles the holder thereof to acquire one common share of the Company at the price of CDN \$0.60 for a period of 24 months following the closing date.

Pursuant to the agency agreement in respect of the March 2017 offering, in addition to the cash commission paid to the agents, 1,500,155 broker warrants were issued to the agents. Each broker warrant entitles the holder thereof to acquire one common share of the Company at the price of CDN \$0.35 for a period of 24 months following the closing date.

Pursuant to the agency agreement in respect of the June 2017 offering, in addition to the cash commission paid to the agents, 4,064,176 broker warrants were issued to the agents. Each broker warrant entitles the holder thereof to acquire one common share of the Company at the price of CDN \$0.15 for a period of 24 months following the closing date.

A total of 8,979,289 broker warrants were issued in connection with the February 2016, March 2016, September 2016, March 2017, June 2017 and July 2017 offerings. As of the date hereof, 5,568,041 broker warrants remain outstanding.

#### Accounting Policies

The accounting policies set out in the notes to the unaudited condensed interim financial statements have been applied in preparing the unaudited condensed interim financial statements for the three and nine months ended September 30, 2017, and the comparative information presented in the unaudited condensed interim financial statements for the three and nine months ended September 30, 2016.

The preparation of financial statements in conformity with IAS 34, Interim Financial Reporting requires management to make estimates and assumptions that affect the reported amount of assets and liabilities and disclosure of provisions at the date of the condensed interim financial statements and the reported amount of expenses during the period. Financial statement items subject to significant judgement include, the measurement of stock based compensation and the fair value estimate of the initial measurement of new warrant liabilities and remeasurement of unlisted warrant liabilities. While management believes that the estimates and assumptions are reasonable, actual results may differ.

#### (a) Stock Options

The Black-Scholes model used by the Company to determine fair values of stock options and warrants was developed for use in estimating the fair value of the stock options and warrants. This model requires the input of highly subjective assumptions including future stock price volatility and expected time until exercise. Changes in the subjective input assumptions can materially affect the fair value estimate.

#### (b) Warrant Liability

In accordance with IAS 32, because the exercise prices of new warrants are not fixed, they are denominated in a currency (Canadian dollar) other than the Company's functional currency (U.S. dollar). Accordingly, the warrants are accounted for as a derivative financial liability. The warrant liability is initially measured at fair value and subsequent changes in fair value are recorded through Net and Comprehensive Loss for the period. The accounting guidance for fair value measurements prioritizes the inputs used in measuring fair value into the following hierarchy:

Level 1 – Quoted prices (unadjusted) in active markets for identical assets or liabilities;

Level 2 – Inputs other than quoted prices included within Level 1 that are directly or indirectly observable:

Level 3 – Unobservable inputs in which little or no market activity exists, therefore requiring an entity to develop its own assumptions about the assumptions that market participants would use in pricing.

The fair value of our Warrant liability is initially based on Level 2 (significant observable inputs) and at September 30, 2017 is based on Level 1, quoted prices (unadjusted) in an active market, for our listed warrants and level 2 for our unlisted warrants.

#### **Related Party Transactions**

During the three and nine months ended September 30, 2017, transactions between the Company and directors, officers and other related parties were related to compensation matters in the normal course of operations and are measured at the exchange amount, which is the amount of consideration established and agreed to by the related parties.

#### Financial Instruments

The Company's financial instruments consist of cash and cash equivalents, amounts receivable, accounts payable and accrued liabilities, warrant liability, and other liabilities and charges. The fair value of these financial instruments approximates their carrying values, unless otherwise noted, due to the short term maturities of these instruments or the discount rate applied.

#### Outlook

The Company's newly expanded management team has focused its efforts on planned, systematic execution of the development of the SPORT Surgical System, directed toward commercialization. Although the challenges associated with the successful design, development and commercialization of a system as advanced as the SPORT Surgical System are numerous, management believes that with the support of its contract product development and manufacturing partners, it can succeed.

On March 23, 2017, the Company published a revised set of milestones based on a detailed review of its progress and expectations going forward. Six milestones were scheduled for completion during the first nine months of 2017, all of which were successfully completed including the early completion during the third quarter of the first preclinical study. During the fourth quarter of 2017, the Company expects that it will deliver the second and third advanced prototype units to Columbia University Medical Center in New York City and Institut Hospitalo-Universitaire de Strasbourg (IHU) in Strasbourg, France, to be used in preclinical studies. Management also expects to confirm FDA and CE Mark clearance pathways in coordination with regulatory authorities. Management believes that the Company remains on track to complete all of its published milestones for the fourth quarter of 2017 on schedule, and expects to be well positioned to achieve its published milestone for the first quarter of 2018.

Concurrently, the Company is continuing to develop its Quality Management System in preparation for projected FDA clearance and CE Mark approval. As required product testing is completed, the results will be incorporated into the documentation and technical files to be reviewed by regulatory authorities.

During September and October 2017 the Company received US \$7,130,034 (CDN \$9,192,753) in financing proceeds from the exercise of share purchase warrants and broker warrants.

Over the next twelve months, the Company plans to raise financing essential to continue the development and commercialization of the SPORT Surgical System. Management will continue to assess the reasonableness of development milestones, as well as timelines and related cost estimates, as additional financing is secured.

The Company's immediate plans include continuing ongoing development, pursuit of key strategic product development and manufacturing relationships, and continuing efforts to secure its intellectual property through the patent and licensing process. The pace at which the Company can carry out these activities will be substantially dependent on its ability to raise the necessary capital on a timely basis.

#### Additional Information

Additional information relating to the Company, including Titan's Annual Information Form for the 2016 fiscal year, is available on SEDAR atwww.sedar.com.

#### FORM 52-109F2 CERTIFICATION OF INTERIM FILINGS FULL CERTIFICATE

I, David J. McNally, Chief Executive Officer of Titan Medical Inc., certify the following:

- Review: I have reviewed the interim financial report and interim MD&A (together, the "interim filings") of Titan Medical Inc. (the "issuer") for the interim period ended September 30, 2017.
- 2. No misrepresentations: Based on my knowledge, having exercised reasonable diligence, the interim filings do not contain any untrue statement of a material fact or omit to state a material fact required to be stated or that is necessary to make a statement not misleading in light of the circumstances under which it was made, with respect to the period covered by the interim filings.
- 3. Fair presentation: Based on my knowledge, having exercised reasonable diligence, the interim financial report together with the other financial information included in the interim filings fairly present in all material respects the financial condition, financial performance and cash flows of the issuer, as of the date of and for the periods presented in the interim filings.
- 4. **Responsibility:** The issuer's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (DC&P) and internal control over financial reporting (ICFR), as those terms are defined in National Instrument 52-109 Certification of Disclosure in Issuers' Annual and Interim Filings, for the issuer.
- 5. **Design:** Subject to the limitations, if any, described in paragraphs 5.2 and 5.3, the issuer's other certifying officer and I have, as at the end of the period covered by the interim filings
  - (a) designed DC&P, or caused it to be designed under our supervision, to provide reasonable assurance that
    - (i) material information relating to the issuer is made known to us by others, particularly during the period in which the interim filings are being prepared; and
    - (ii) information required to be disclosed by the issuer in its annual filings, interim filings or other reports filed or submitted by it under securities legislation is recorded, processed, summarized and reported within the time periods specified in securities legislation; and
  - (b) designed ICFR, or caused it to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with the issuer's GAAP.
- 5.1 Control framework: The control framework the issuer's other certifying officer and I

used to design the issuer's ICFR is Integrated Framework (COSO).

- 5.2 ICFR material weakness relating to design: N/A
- 5.3 Limitation on scope of design: N/A
- 6. Reporting changes in ICFR: The issuer has disclosed in its interim MD&A any change in the issuer's ICFR that occurred during the period beginning on January 1, 2017 and ended on September 30, 2017 that has materially affected, or is reasonably likely to materially affect, the issuer's ICFR.

Date: November 9, 2017

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David J. McNally Chief Executive Officer Titan Medical Inc.

#### FORM 52-109F2 CERTIFICATION OF INTERIM FILINGS FULL CERTIFICATE

I, Stephen Randall, Chief Financial Officer of Titan Medical Inc., certify the following:

- Review: I have reviewed the interim financial report and interim MD&A (together, the "interim filings") of Titan Medical Inc. (the "issuer") for the interim period ended September 30, 2017.
- 2. No misrepresentations: Based on my knowledge, having exercised reasonable diligence, the interim filings do not contain any untrue statement of a material fact or omit to state a material fact required to be stated or that is necessary to make a statement not misleading in light of the circumstances under which it was made, with respect to the period covered by the interim filings.
- 3. Fair presentation: Based on my knowledge, having exercised reasonable diligence, the interim financial report together with the other financial information included in the interim filings fairly present in all material respects the financial condition, financial performance and cash flows of the issuer, as of the date of and for the periods presented in the interim filings.
- 4. Responsibility: The issuer's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (DC&P) and internal control over financial reporting (ICFR), as those terms are defined in National Instrument 52-109 Certification of Disclosure in Issuers' Annual and Interim Filings, for the issuer.
- Design: Subject to the limitations, if any, described in paragraphs 5.2 and 5.3, the issuer's other certifying officer and I have, as at the end of the period covered by the interim filings
  - (a) designed DC&P, or caused it to be designed under our supervision, to provide reasonable assurance that
    - (i) material information relating to the issuer is made known to us by others, particularly during the period in which the interim filings are being prepared; and
    - (ii) information required to be disclosed by the issuer in its annual filings, interim filings or other reports filed or submitted by it under securities legislation is recorded, processed, summarized and reported within the time periods specified in securities legislation; and
  - (b) designed ICFR, or caused it to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with the issuer's GAAP.
- 5.1 Control framework: The control framework the issuer's other certifying officer and I

used to design the issuer's ICFR is Integrated Framework (COSO).

- ICFR material weakness relating to design: N/A 5.2
- 5.3 Limitation on scope of design: N/A
- 6. Reporting changes in ICFR: The issuer has disclosed in its interim MD&A any change in the issuer's ICFR that occurred during the period beginning on January 1, 2017 and ended on September 30, 2017 that has materially affected, or is reasonably likely to materially affect, the issuer's ICFR.

Date: November 9, 2017

Stephen Kandall Chief Financial Or

Titan Medical Inc.

#### NOT FOR DISTRIBUTION TO UNITED STATES NEWSWIRE SERVICES OR FOR DISSEMINATION IN THE UNITED STATES



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#### TITAN MEDICAL INC. ANNOUNCES MARKETED OFFERING OF UNITS

Toronto, ON – (Marketwired – November 14, 2017) – Titan Medical Inc. ("Titan" or the "Company")(TSX: TMD) (OTCQB: TITXF) announces today that it has filed and been receipted for a preliminary short form prospectus (the "Preliminary Prospectus") with securities regulators in the provinces of Ontario, British Columbia and Alberta in connection with a proposed marketed offering of units (the "Units") of the Company (the "Offering"). Each Unit will be comprised of one common share of the Company and one-half of one common share purchase warrant (each full warrant, a "Warrant"). The Offering will be undertaken on a "best efforts" agency basis.

The number of Units to be distributed, the price of each Unit, the minimum and maximum size of the Offering, and the exercise price and term of each Warrant will be determined by negotiation between the Company and the agent (as defined herein) in the context of the market with final terms to be determined at the time of pricing. Bloom Burton Securities Inc. (the "**Agent**") is the sole agent for the Offering. The Units may also be offered for sale in the United States through United States registered broker-dealers on a private placement basis pursuant to an exemption from the registration requirements of the United States Securities Act of 1933, as amended (the "**U.S. Securities Act**") and applicable state laws.

The Offering is subject to a number of customary conditions, including, without limitation, receipt of all regulatory and stock exchange approvals. The net proceeds of the Offering will be used to fund continued development work in connection with the Company's SPORT Surgical System, as well as for working capital and other general corporate purposes. Further details are disclosed in the Preliminary Prospectus, available at www.sedar.com.

#### About Titan

Titan is a Canadian public company focused on research and development through to the planned commercialization of computer-assisted robotic surgical technologies for application in minimally invasive surgery ("MIS"). The Company is currently developing the SPORT Surgical System, a single-port robotic surgical system. The SPORT Surgical System is comprised of a surgeon-controlled patient cart that includes a 3D high definition vision system and multi-articulating instruments for performing MIS procedures, and a surgeon workstation that provides the surgeon with an advanced ergonomic interface to the patient cart and a 3D endoscopic view inside the patient's body during MIS procedures. With the SPORT Surgical System, the Company aims to pursue a broad set of surgical indications, including general abdominal, gynecologic and urologic procedures.

For more information, please visit the Company's website at www.titanmedicalinc.com.

#### Forward-Looking Statements

This news release contains "forward-looking statements" which reflect the current expectations of management of the Company's future growth, results of operations, performance and business prospects and opportunities. Wherever possible, words such as "may", "would", "could", "will", "anticipate", "believe", "plan", "expect", "intend", "estimate", "potential for" and similar expressions have been used to identify these forward-looking statements. These statements, including with respect to the use of the net proceeds of the Offering, reflect management's current beliefs with respect to future events and are based on information currently available to management. Forward-looking statements involve significant risks, uncertainties and assumptions. Many factors could cause the Company's actual results, performance or achievements to be materially different from any future results, performance or achievements that may be expressed or implied by such forward-looking statements, including, without limitation, those listed in the "Risk Factors" section of the Company's Annual Information Form dated March 31, 2017 (which may be viewed at www.sedar.com). Should one or more of these risks or uncertainties materialize, or should assumptions underlying the forward-looking statements prove incorrect, actual results, performance, or achievements may vary materially from those expressed or implied by the forward-looking statements. Although the forward-looking statements contained in the news release are based upon what management currently believes to be reasonable assumptions, the Company cannot assure prospective investors that actual results, performance or achievements with these forward-looking statements.

#### **U.S. Securities Law Caution**

The securities described herein have not been, and will not be, registered under the U.S. Securities Act, or any state securities laws, and accordingly, may not be offered or sold to, or for the account or benefit of, persons in the United States or "U.S. persons", as such term is defined in Regulation S promulgated under the U.S. Securities Act ("U.S. Persons"), except in compliance with the registration requirements of the U.S. Securities Act and applicable state securities requirements or pursuant to exemptions therefrom. This press release does not constitute an offer to sell or a solicitation of an offer to buy any of the Company's securities to, or for the account or benefit of, persons in the United States or U.S. Persons.

Neither the Toronto Stock Exchange (the "TSX") nor its Regulation Services Provider (as that term is defined in the policies of the TSX) accepts responsibility for the adequacy or accuracy of this release.

#### CONTACT INFORMATION

LHA Investor Relations Kim Sutton Golodetz ###



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#### Titan Medical Announces Pricing of Marketed Offering of Units

Toronto, ON – (Marketwired – November 15, 2017) – Titan Medical Inc. ("Titan" or the "Company") (TSX: TMD) (OTCQB: TITXF) is pleased to announce today that it has priced its previously announced marketed offering (the "Offering") of units of the Company (the "Units") for minimum gross proceeds of CDN\$13,000,000 and maximum gross proceeds of CDN\$15,000,000. Pursuant to the Offering, Titan will issue Units at a price of CDN \$0.50 per Unit. Each Unit is comprised of one common share of the Company (a "Common Share") and one Common Share purchase warrant of the Company (a "Warrant"). Each Warrant is exercisable for one Common Share at a price of CDN \$0.60, for a period of 5 years following the closing of the Offering.

The Offering will be undertaken on a best efforts basis pursuant to the terms and conditions of an agency agreement to be entered into between the Company and Bloom Burton Securities Inc. (the "Agent"). In connection with the Offering, the Agent will be paid a cash commission equal to 7.0% of the gross proceeds of the Offering and it will be issued that number of non-transferable broker warrants exercisable for Common Shares equal to 7.0% of the number of Units sold in the Offering (in each case excluding any Units sold to certain excluded subscribers).

A preliminary short form prospectus in respect of the Offering dated November 14, 2017 (the **'Preliminary Prospectus**'') has been filed in each of the provinces of Ontario, British Columbia and Alberta pursuant to National Instrument 44-101 - *Short Form Prospectus Distributions*. In addition, the Units may also be offered for sale in the United States, by or through United States registered broker-dealers appointed by the Agent as sub-agents, and in certain offshore jurisdictions, in each case under available exemptions from the prospectus and registration requirements of applicable securities laws. The Company intends to file an amended and restated preliminary short form prospectus (the "**Amended and Restated Preliminary Prospectus**') with the securities regulatory authorities in each of the provinces of Ontario, British Columbia and Alberta, to provide additional details concerning the Offering, including pricing information.

The net proceeds of the Offering (the "Net Proceeds") will be used to fund continued development work in connection with the Company's SPORT Surgical System, as well as for working capital and other general corporate purposes. Please see "Use of Proceeds" in the Preliminary Prospectus, which is available under the Company's profile at www.sedar.com, for further details of the use of Net Proceeds.

The Common Shares are listed on the Toronto Stock Exchange (the "TSX") under the symbol "TMD". An application will be made to list the Common Shares issuable under the Offering for trading on the TSX. Listing will be subject to the Company fulfilling all of the requirements of the TSX.

#### About Titan

Titan is a Canadian public company focused on the design and development of a robotic surgical system for application in minimally invasive surgery (**MIS**"). The Company's SPORT Surgical System, currently under development, includes a surgeon-controlled robotic platform that includes a 3D high-definition vision system and instruments for performing MIS procedures. The surgical system also includes a surgeon workstation that provides the surgeon with an advanced ergonomic interface to the robotic platform for controlling the instruments and provides a 3D high-definition endoscopic view of inside a patient's body. The SPORT Surgical System is designed to enable surgeons to perform a broad set of surgical procedures for general abdominal, gynecological and urologic indications. For more information, visit the Company's website at www.titanmedicalinc.com.

#### Forward-Looking Statements

This press release contains "forward-looking statements" which reflect the current expectations of management of the Company. Such statements include, but are not limited to, statements regarding receipt of applicable regulatory approvals and the timing thereof, the filing of the Amended and Restated Preliminary Prospectus, the listing of the Common Shares on the TSX and the proposed use of the Net Proceeds. Wherever possible, words such as "may", "would", "could", "will", "anticipate", "believe", "plan", "expect", "intend", "estimate", "potential for" and similar expressions have been used to identify these forward-looking statements. These statements reflect management's current beliefs with respect to future events and are based on information currently available to management. Forward-looking statements involve significant risks, uncertainties and assumptions. Many factors could cause the Company's actual results, performance or achievements to be materially different from any future results, performance or achievements that may be expressed or implied by such forward-looking statements, including, without limitation, those listed in the "Risk Factors" section of the Company's Annual Information Form dated March 31, 2017 (which may be viewed at <u>www.sedar.com</u>). Should one or more of these risks or uncertainties materialize, or should assumptions underlying the forward looking statements prove incorrect, actual results, performance or achievements may vary materially from those expressed or implied by the forward-looking statements contained in this news release. These factors should be considered carefully and prospective investors should not place undue reliance on the forward-looking statements. Although the forward-looking statements contained in the news release are based upon what management currently believes to be reasonable assumptions, the Company cannot assure prospective investors that actual results, performance or achievements will be consistent with these forward-looking statements.

#### **U.S. Securities Law Caution**

The securities described herein have not been, and will not be, registered under the United States Securities Act of 1933, as amended (the **'U.S. Securities Act**''), or any state securities laws, and accordingly, may not be offered or sold to, or for the account or benefit of, persons in the United States or "U.S. persons", as such term is defined in Regulation S promulgated under the U.S. Securities Act (**''U.S. Persons**''), except in compliance with the registration requirements of the U.S. Securities Act and applicable state securities requirements or pursuant to exemptions therefrom. This press release does not constitute an offer to sell or a solicitation of an offer to buy any of the Company's securities to, or for the account or benefit of, persons in the United States or U.S. Persons.

### CONTACT INFORMATION



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# TITAN MEDICAL REPORTS FIRST USE OF SPORT SURGICAL SYSTEM AT COLUMBIA UNIVERSITY MEDICAL CENTER

Completes critical surgical tasks integral to successful performance in gynecologic procedures

TORONTO (November 16, 2017) – Titan Medical Inc. ("Titan" or the "Company") (TSX: TMD) (OTCQB: TITXF) a medical device company focused on the design, development and commercialization of a robotic surgical system for application in minimally invasive surgery ("MIS"), announces the completion at Columbia University Medical Center's surgical simulation center in New York City of critical surgical tasks integral to successful performance in gynecologic procedures using the Company's advanced prototype SPORT Surgical System. The demonstration is the first step of the preclinical feasibility and validation studies with the SPORT system completed at this world-renowned academic medical center, one of Titan's two Centers of Excellence in the U.S.

David McNally, President and CEO of Titan Medical, said, "Continuing on the recent success with the SPORT Surgical System in single-port robotic procedures at Florida Hospital Nicholson Center, we are delighted to announce successful SPORT system installation and first use at Columbia University Medical Center. The completion of critical tasks including tissue grasping, dissection, suturing, cutting and coagulation through a single incision further validates the potential utility of the SPORT system in gynecologic surgery."

"Under the expert guidance of renowned surgeons Dr. Arnold Advincula at Columbia and Dr. William Burke from Stony Brook, we achieved repeatable and consistent results in establishing the feasibility of the SPORT system in a variety of simulated gynecologic procedures," he added. "It is important to demonstrate repeated success with the SPORT system in a variety of surgical disciplines at each of our Centers of Excellence, and we look forward to upcoming colorectal, urologic and general surgery procedures at the three sites. We remain excited and focused on the SPORT system's potential as a unique single-port robotic system that can provide exceptional clinical value in a variety of abdominal procedures."

Arnold Advincula, M.D., Chief of Gynecologic Specialty Surgery at Columbia University and an expert in robotic surgery, said, "After using the SPORT system, I am more convinced that single-port robotic surgery could become a reality for many patients. Previous approaches to single-incision surgery have been limiting and ineffective. The SPORT system demonstrated that it can not only address those limitations, but it may also provide some unique capabilities for enabling a variety of gynecologic surgeries through a single incision. The future of single-port robotic surgery is bright and I am excited to actively participate in this journey with Titan Medical."

William Burke, M.D., a gynecologic oncologist at Stony Brook University Hospital with extensive robotic surgery experience, commented, "Having completed thousands of multi-port robotic surgeries over several years of practice, I was pleased with the capabilities of the SPORT system that eased my transition from a multi-port approach to single-port robotic surgery. The workspace, access and ease of use while maintaining critical multi-port robotic features such as multi-articulated instruments and high-definition 3D visualization through a single incision, are important factors in transitioning from multi-port to single-port robotic surgery. I must say that the SPORT system, with its sophistication, makes a highly compelling case for single-port robotic surgery."

#### About the Columbia University Medical Center

<u>Columbia University Medical Center</u> provides international leadership in basic, preclinical and clinical research; medical and health sciences education; and patient care. The medical center trains future leaders and includes the dedicated work of many physicians, scientists, public health professionals, dentists and nurses at the College of Physicians and Surgeons, the Mailman School of Public Health, the College of Dental Medicine, the School of Nursing, the biomedical departments of the Graduate School of Arts and Sciences, and allied research centers and institutions. Columbia University Medical Center is home to the largest medical research enterprise in New York City and State and one of the largest faculty medical practices in the Northeast. The campus that Columbia University Medical Center shares with its hospital partner, New York-Presbyterian, is now called the Columbia University Irving Medical Center. For more information, visit <u>cume.columbia.edu or columbiadoctors.org</u>.

#### About Titan Medical Inc.

Titan Medical Inc. is a Canadian public company focused on research and development through to the planned commercialization of computer-assisted robotic surgical technologies for application in minimally invasive surgery. The Company is currently developing the SPORT Surgical System, a single-port robotic surgical system. The SPORT Surgical System is comprised of a surgeon-controlled patient cart that includes a 3D high definition vision system and multi-articulating instruments for performing MIS procedures, and a surgeon workstation that provides the surgeon with an advanced ergonomic interface to the patient cart and a 3D endoscopic view inside the patient's body during MIS procedures. With the SPORT Surgical System, the Company aims to pursue a broad set of surgical indications, including general abdominal, gynecologic and urologic procedures.

For more information, please visit the Company's website at www.titanmedicalinc.com.

#### Forward-Looking Statements

This news release contains "forward-looking statements" which reflect the current expectations of management of the Company's future growth, results of operations, performance and business prospects and opportunities. Wherever possible, words such as "may", "would", "could", "will", "anticipate", "believe", "plan", "expect", "intend", "estimate", "potential for" and similar expressions have been used to identify these forward-looking statements. These statements, including statements with respect to the use of the net proceeds of the Offering and the anticipated listing of the Common Shares on the TSX, reflect management's current beliefs with respect to future events and are based on information currently available to management. Forward-looking statements involve significant risks, uncertainties and assumptions. Many factors could cause the Company's actual results, performance or achievements to be materially different from any future results, performance or achievements that may be expressed or implied by such forward-looking statements, including, without limitation, those listed in the "Risk Factors" section of the Company's Annual Information Form dated March 31, 2017 (which may be viewed at www.sedar.com). Should one or more of these risks or uncertainties materialize, or should assumptions underlying the forward-looking statements may vary materially from those expressed or implied by the forward-looking statements contained in this news release. These factors should be considered carefully, and prospective investors should not place undue reliance on the forward-looking statements. Although the forward-looking statements contained in the news release are based upon what management currently believes to be reasonable assumptions, the Company cannot assure prospective investors that actual results, performance or achievements will be consistent with these forward-looking statements.

Contacts:

# TITAN MEDICAL.

#### Titan Medical Announces Filing of Amended and Restated Preliminary Prospectus

#### NOT FOR DISTRIBUTION TO UNITED STATES NEWSWIRE SERVICES OR FOR DISSEMINATION IN THE UNITED STATES

TORONTO, Nov. 17, 2017 -- Titan Medical Inc. ("Titan" or the "Company") (TSX:TMD) (OTCQB:TITXF) advises that it has filed an amended and restated preliminary short-form prospectus (the "Amended Prospectus") which amends its preliminary short-form prospectus dated November 14, 2017 related to the previously announced marketed offering (the "Offering") of units of the Company (the "Units") for minimum gross proceeds of CDN\$13,000,000 and maximum gross proceeds of CDN\$15,000,000. Pursuant to the Offering, Titan will issue Units at a price of CDN \$0.50 per Unit. Each Unit is comprised of one common share of the Company (a "Warrant"). Each Warrant is exercisable for one Common Share at a price of CDN \$0.60, for a period of 5 years following the closing of the Offering.

The Offering will be undertaken on a best efforts basis pursuant to the terms and conditions of an agency agreement to be entered into between the Company and Bloom Burton Securities Inc. (the "Agent"). In connection with the Offering, the Agent will be paid a cash commission equal to 7.0% of the gross proceeds of the Offering and it will be issued that number of non-transferable broker warrants exercisable for Common Shares equal to 7.0% of the number of Units sold in the Offering (in each case excluding any Units sold to certain excluded subscribers). The Company has granted the Agent an option, exercisable in whole or in part at any time and from time to time on the first Closing Date or for a period of 30 days following the first Closing Date, to offer for sale such number of additional Units (the "**Over-Allotment Units**") and/or Warrants (the "**Over-Allotment Warrants**") as is equal to 15% of the number of Units issued under the Offering, solely to cover over-allotments, if any, and for market stabilization purposes.

The Amended Prospectus has been filed in each of the provinces of Ontario, British Columbia and Alberta pursuant to National Instrument 44-101 -Short Form Prospectus Distributions. In addition, the Units may also be offered for sale in the United States, by or through United States registered broker-dealers appointed by the Agent as subagents, and in certain offshore jurisdictions, in each case under available exemptions from the prospectus and registration requirements of applicable securities laws.

The net proceeds of the Offering (the "Net Proceeds") will be used to fund continued development work in connection with the Company's SPORT Surgical System, as well as for working capital and other general corporate purposes. Please see "Use of Proceeds" in the Amended Prospectus, which is available under the Company's profile at www.sedar.com, for further details of the use of Net Proceeds.

The Common Shares are listed on the Toronto Stock Exchange (the '**TSX**'') under the symbol "TMD". An application will be made to list the Common Shares issuable under the Offering for trading on the TSX. Listing will be subject to the Company fulfilling all of the requirements of the TSX.

#### About Titan

Titan is a Canadian public company focused on the design and development of a robotic surgical system for application in minimally invasive surgery (**MIS**"). The Company's SPORT Surgical System, currently under development, includes a surgeon -controlled robotic platform that includes a 3D high-definition vision system and instruments for performing MIS procedures. The surgical system also includes a surgeon workstation that provides the surgeon with an advanced ergonomic interface to the robotic platform for controlling the instruments and provides a 3D high-definition endoscopic view of inside a patient's body. The SPORT Surgical System is designed to enable surgeons to perform a broad set of surgical procedures for general abdominal, gynecological and urologic indications. For more information, visit the Company's website at www.titanmedicalinc.com.

#### **Forward-Looking Statements**

This press release contains "forward-looking statements" which reflect the current expectations of management of the Company. Such statements include, but are not limited to, statements regarding the listing of the Common Shares on the TSX and the proposed use of the Net Proceeds. Wherever possible, words such as "may", "would", "could", "will", "anticipate", "believe", "plan", "expect", "intend", "estimate", "potential for" and similar expressions have been used to identify these forward-looking statements. These statements reflect management's current beliefs with respect to future events and are based on information currently available to management. Forward-looking statements involve significant risks, uncertainties and assumptions. Many factors could cause the Company's actual results, performance or achievements to be materially different from any future results, performance or achievements that may be expressed or implied by such forward-looking statements, including, without limitation, those listed in the "Risk Factors" section of the Company's Annual Information Form dated March 31, 2017 (which may be viewed at <u>www.sedar.com</u>). Should one or more of these risks or uncertainties materialize, or should assumptions underlying the forward looking statements prove incorrect, actual results, performance or achievements may vary materially from those expressed or implied by the forward-looking statements contained in this news release. These factors should be considered carefully and prospective investors should not place undue reliance on the forward-looking statements. Although the forward-looking statements contained in the news release are based upon what management currently believes to be reasonable assumptions, the Company cannot assure prospective investors that actual results, performance or achievements will be consistent with these forward-looking statements.

#### **U.S. Securities Law Caution**

The securities described herein have not been, and will not be, registered under the United States Securities Act of 1933, as amended (the **'U.S. Securities Act**''), or any state securities laws, and accordingly, may not be offered or sold to, or for the account or benefit of, persons in the United States or "U.S. persons", as such term is defined in Regulation S promulgated under the U.S. Securities Act (**''U.S. Persons**''), except in compliance with the registration requirements of the U.S. Securities Act and applicable state securities requirements or pursuant to exemptions therefrom. This press release does not constitute an offer to sell or a solicitation of an offer to buy any of the Company's securities to, or for the account or benefit of, persons in the United States or U.S. Persons.

#### CONTACT INFORMATION



170 University Avenue • Suite 1000 Toronto, Ontario, Canada M5H 3B3 •Tel: 416.548.7522 info@titanmedicalinc.com • www.titanmedicalic.com

#### Titan Medical Announces Upsizing of Previously Announced Marketed Offering of Units

Toronto, ON – (Marketwired – November 20, 2017) – Titan Medical Inc. ("Titan" or the "Company") (TSX: TMD) (OTCQB: TITXF) is pleased to announce the upsizing of the previously announced marketed offering (the "Offering") of units of the Company (the "Units"). Based on strong investor demand, the board has approved an increase in the minimum Offering to CDN\$18,000,000 (from CDN\$13,000,000) and the maximum Offering to CDN\$23,000,000 (from CDN\$15,000,000). Pursuant to the Offering, Titan will issue Units at a price of CDN \$0.50 per Unit. Each Unit is comprised of one common share of the Company (a "Common Share") and one Common Share purchase warrant of the Company (a "Warrant"). Each Warrant is exercisable for one Common Share at a price of CDN \$0.60, for a period of five years following the closing of the Offering. The agent will not be granted any over-allotment option.

David McNally, President and CEO of Titan Medical, said, "We are delighted that the investment community has responded enthusiastically to the Offering, acknowledging the significant progress that the Company has made in achieving its milestones, as well as its prospects for the future."

In connection with the foregoing, the Company intends to file a second amended and restated preliminary short form prospectus in each of the provinces of Ontario, British Columbia and Alberta pursuant to National Instrument 44-101 - *Short Form Prospectus Distributions*. In addition, the Units may also be offered for sale in the United States, by or through United States registered broker-dealers appointed by the Agent as sub-agents, and in certain offshore jurisdictions, in each case under available exemptions from the prospectus and registration requirements of applicable securities laws.

#### About Titan

Titan is a Canadian public company focused on the design and development of a robotic surgical system for application in minimally invasive surgery (**MIS**"). The Company's SPORT Surgical System, currently under development, includes a surgeon-controlled robotic platform that includes a 3D high-definition vision system and instruments for performing MIS procedures. The surgical system also includes a surgeon workstation that provides the surgeon with an advanced ergonomic interface to the robotic platform for controlling the instruments and provides a 3D high-definition endoscopic view of inside a patient's body. The SPORT Surgical System is designed to enable surgeons to perform a broad set of surgical procedures for general abdominal, gynecological and urologic indications. For more information, visit the Company's website at www.titanmedicalinc.com.

#### **Forward-Looking Statements**

This press release contains "forward-looking statements" which reflect the current expectations of management of the Company. Such statements include, but are not limited to, statements regarding the filing of an amended and restated preliminary short form prospectus. Wherever possible, words such as "may", "would", "could", "will", "anticipate", "believe", "plan", "expect", "intend", "estimate", "potential for" and similar expressions have been used to identify these forward-looking statements. These statements reflect management's current beliefs with respect to future events and are based on information currently available to management. Forward-looking statements involve significant risks, uncertainties and assumptions. Many factors could cause the Company's actual results, performance or achievements to be materially different from any future results, performance or achievements that may be expressed or implied by such forward-looking statements, including, without limitation, those listed in the "Risk Factors" section of the Company's Annual Information Form dated March 31, 2017 (which may be viewed at <u>www.sedar.com</u>). Should one or more of these risks or uncertainties materialize, or should assumptions underlying the forward-looking statements prove incorrect, actual results, performance or achievements may vary materially from those expressed or implied by the forward-looking statements. Although the forward-looking statements contained in the news release are based upon what management currently believes to be reasonable assumptions, the Company cannot assure prospective investors that actual results, performance or achievements will be consistent with these forward-looking statements.

#### **U.S. Securities Law Caution**

The securities described herein have not been, and will not be, registered under the United States Securities Act of 1933, as amended (the **'U.S. Securities Act**''), or any state securities laws, and accordingly, may not be offered or sold to, or for the account or benefit of, persons in the United States or "U.S. persons", as such term is defined in Regulation S promulgated under the U.S. Securities Act (**''U.S. Persons**''), except in compliance with the registration requirements of the U.S. Securities Act and applicable state securities requirements or pursuant to exemptions therefrom. This press release does not constitute an offer to sell or a solicitation of an offer to buy any of the Company's securities to, or for the account or benefit of, persons in the United States or U.S. Persons.

#### CONTACT INFORMATION

# TITAN MEDICAL.

#### Titan Medical Announces Filing of Second Amended and Restated Preliminary Prospectus

#### NOT FOR DISTRIBUTION TO UNITED STATES NEWSWIRE SERVICES OR FOR DISSEMINATION IN THE UNITED STATES

TORONTO, Nov. 23, 2017 -- **Titan Medical Inc. ("Titan" or the "Company")**(TSX:TMD) (OTCQB:TITXF) advises that it has filed and has obtained a receipt for an amended and restated preliminary short form prospectus (the "**Second Amended Prospectus**") which amends and restates its previously filed amended and restated short form prospectus dated November 16, 2017 which, in turn, amended and restated its preliminary short form prospectus dated November 14, 2017 in connection with the marketed offering (the "**Offering**") of units of the Company (the "**Units**"). The Second Amended Prospectus provides for the previously announced increase of the minimum gross proceeds of the Offering to CDN\$18,000,000 (from CDN \$13,000,000) and the maximum gross proceeds of the Offering to CDN\$23,000,000 (from CDN \$15,000,000). Pursuant to the Offering, Titan will issue Units at a price of CDN \$0.50 per Unit. Each Unit is comprised of one common share of the Company (a "**Common Share**") and one Common Share purchase warrant of the Company (a "**Warrant**"). Each Warrant is exercisable for one Common Share at a price of CDN \$0.60, for a period of 5 years following the closing of the Offering.

The Offering will be undertaken on a best efforts basis pursuant to the terms and conditions of an agency agreement to be entered into between the Company and Bloom Burton Securities Inc. (the "Agent"). In connection with the Offering, the Agent will be paid a cash commission equal to 7.0% of the gross proceeds of the Offering and it will be issued that number of non-transferable broker warrants exercisable for Common Shares equal to 7.0% of the number of Units sold in the Offering (in each case excluding any Units sold to certain excluded subscribers).

The Second Amended Prospectus has been filed in each of the provinces of Ontario, British Columbia and Alberta pursuant to National Instrument 44-101 -*Short Form Prospectus Distributions*. In addition, the Units may also be offered for sale in the United States, by or through United States registered broker-dealers appointed by the Agent as sub-agents, and in certain offshore jurisdictions, in each case under available exemptions from the prospectus and registration requirements of applicable securities laws.

The net proceeds of the Offering (the "Net Proceeds") will be used to fund continued development work in connection with the Company's SPORT Surgical System, as well as for working capital and other general corporate purposes. Please see "Use of Proceeds" in the Second Amended Prospectus, which is available under the Company's profile at www.sedar.com, for further details of the use of Net Proceeds.

The Common Shares are listed on the Toronto Stock Exchange (the "TSX") under the symbol "TMD". An application has been made to list the Common Shares issuable under the Offering for trading on the TSX. Listing will be subject to the Company fulfilling all of the requirements of the TSX.

#### About Titan

Titan is a Canadian public company focused on the design and development of a robotic surgical system for application in minimally invasive surgery (**MIS**"). The Company's SPORT Surgical System, currently under development, includes a surgeon -controlled robotic platform that includes a 3D high-definition vision system and instruments for performing MIS procedures. The surgical system also includes a surgeon workstation that provides the surgeon with an advanced ergonomic interface to the robotic platform for controlling the instruments and provides a 3D high-definition endoscopic view of inside a patient's body. The SPORT Surgical System is designed to enable surgeons to perform a broad set of surgical procedures for general abdominal, gynecological and urologic indications. For more information, visit the Company's website at www.titanmedicalinc.com.

#### **Forward-Looking Statements**

This press release contains "forward-looking statements" which reflect the current expectations of management of the Company. Such statements include, but are not limited to, statements regarding the listing of the Common Shares on the TSX and the proposed use of the Net Proceeds. Wherever possible, words such as "may", "would", "could", "will", "anticipate", "believe", "plan", "expect", "intend", "estimate", "potential for" and similar expressions have been used to identify these forward-looking statements. These statements reflect management's current beliefs with respect to future events and are based on information currently available to management. Forward-looking statements involve significant risks, uncertainties and assumptions. Many factors could cause the Company's actual results, performance or achievements to be materially different from any future results, performance or achievements that may be expressed or implied by such forward-looking statements, including, without limitation, those listed in the "Risk Factors" section of the Company's Annual Information Form dated March 31, 2017 (which may be viewed at <u>www.sedar.com</u>). Should one or more of these risks or uncertainties materialize, or should assumptions underlying the forward looking statements prove incorrect, actual results, performance or achievements may vary materially from those expressed or implied by the forward-looking statements contained in this news release. These factors should be considered carefully and prospective investors should not place undue reliance on the forward-looking statements. Although the forward-looking statements contained in the news release are based upon what management currently believes to be reasonable assumptions, the Company cannot assure prospective investors that actual results, performance or achievements will be consistent with these forward-looking statements.

#### **U.S. Securities Law Caution**

The securities described herein have not been, and will not be, registered under the United States Securities Act of 1933, as amended (the "U.S. Securities Act"), or any state securities laws, and accordingly, may not be offered or sold to, or for the account or benefit of, persons in the United States or "U.S. persons", as such term is defined in Regulation S promulgated under the U.S. Securities Act ("U.S. Persons"), except in compliance with the registration requirements of the U.S. Securities Act and applicable state securities requirements or pursuant to exemptions therefrom. This press release does not constitute an offer to sell or a solicitation of an offer to buy any of the Company's securities to, or for the account or benefit of, persons in the United States or U.S. Persons.

#### CONTACT INFORMATION

#### Item 1 Name and Address of Company

Titan Medical Inc. (the "**Company**" or "**Titan**") 170 University Avenue Suite 1000 Toronto, Ontario M5H 3B3

#### Item 2 Date of Material Change

November 14, 2017, November 15, 2017, November 17, 2017, November 20, 2017 and November 23, 2017.

#### Item 3 News Release

The press releases attached as Schedule "A", Schedule "B", Schedule "C", Schedule "D" and Schedule "E" were disseminated through Marketwired on November 14, November 15, November 17, November 20 and November 23, 2017, respectively, with respect to the material changes.

#### Item 4 Summary of Material Change

On November 14, 2017, the Company filed a preliminary short-form prospectus dated November 14, 2017 (the "**Prospectus**") with securities regulators in Ontario, British Columbia and Alberta, with respect to an offering of units comprised of one common share and one-half of one common share purchase warrant (the "**Offering**"). Bloom Burton Securities Inc. was announced as the sole agent for the Offering.

On November 15, 2017, the Company announced that it had priced the Offering and set the minimum gross proceeds at CDN\$13,000,000 and the maximum gross proceeds at CDN\$15,000,000. The Company also announced that the units would consist of one common share and one common share purchase warrant and be issued at a price of CDN\$0.50 and that the warrants would each be exercisable for one common share at a price of CDN\$0.60 for a period of 5 years following the closing of the Offering.

On November 17, 2017 the Company announced that it had filed an amended and restated preliminary short-form prospectus dated November 16, 2017 (the "Amended and Restated Prospectus") with securities regulators in Ontario, British Columbia and Alberta, amending and restating the Prospectus to reflect, among other things, the pricing of the Offering.

On November 20, 2017 the Company announced that it had upsized its previously announced Offering, increasing the minimum gross proceeds to CDN\$18,000,000 (from \$13,000,000) and the maximum gross proceeds to CDN\$23,000,000 (from \$15,000,000).

On November 23, 2017 the Company announced that it had filed a second amended and restated preliminary short-form prospectus dated November 21, 2017, amending and restating the Amended and Restated Prospectus to reflect, among other things, the upsizing of the Offering.

| Item 5                                                                                                              | Full Description of Material Change                         |  |
|---------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|--|
| 5.1                                                                                                                 | Full Description of Material Change                         |  |
| Please see the press releases attached as Schedule "A", Schedule "B", Schedule "C", Schedule "D" and Schedule "E".  |                                                             |  |
| 5.2                                                                                                                 | Disclosure for Restructuring Transactions                   |  |
| Not applicable.                                                                                                     |                                                             |  |
| Item 6                                                                                                              | Reliance on subsection 7.1(2) of National Instrument 51-102 |  |
| Not applicable.                                                                                                     |                                                             |  |
| Item 7                                                                                                              | Omitted Information                                         |  |
| Not applicable.                                                                                                     |                                                             |  |
| Item 8                                                                                                              | Executive Officer                                           |  |
| The following executive officer is knowledgeable about the material changes and may be contacted about this report: |                                                             |  |
| Stephen Randall<br>Chief Financial Officer<br>(416) 548-7522 (ext. 152)                                             |                                                             |  |
| Email:<br>Website:                                                                                                  | stephen@titanmedicalinc.com<br>www.titanmedicalinc.com      |  |
| Item 9                                                                                                              | Date of Report                                              |  |
| November 24, 2017.                                                                                                  |                                                             |  |

Schedule "A"

[See Attached]

# TITAN MEDICAL

170 University Avenue • Suite 1000 Toronto, Ontario, Canada M5H 3B3 •Tel: 416.548.7522 info@titanmedicalinc.com • www.titanmedicalic.com

#### TITAN MEDICAL INC. ANNOUNCES MARKETED OFFERING OF UNITS

Toronto, ON – (Marketwired – November 14, 2017) – Titan Medical Inc. ("Titan" or the "Company")(TSX: TMD) (OTCQB: TITXF) announces today that it has filed and been receipted for a preliminary short form prospectus (the "Preliminary Prospectus") with securities regulators in the provinces of Ontario, British Columbia and Alberta in connection with a proposed marketed offering of units (the "Units") of the Company (the "Offering"). Each Unit will be comprised of one common share of the Company and one-half of one common share purchase warrant (each full warrant, a "Warrant"). The Offering will be undertaken on a "best efforts" agency basis.

The number of Units to be distributed, the price of each Unit, the minimum and maximum size of the Offering, and the exercise price and term of each Warrant will be determined by negotiation between the Company and the agent (as defined herein) in the context of the market with final terms to be determined at the time of pricing. Bloom Burton Securities Inc. (the "**Agent**") is the sole agent for the Offering. The Units may also be offered for sale in the United States through United States registered broker-dealers on a private placement basis pursuant to an exemption from the registration requirements of the United States Securities Act of 1933, as amended (the "**U.S. Securities Act**") and applicable state laws.

The Offering is subject to a number of customary conditions, including, without limitation, receipt of all regulatory and stock exchange approvals. The net proceeds of the Offering will be used to fund continued development work in connection with the Company's SPORT Surgical System, as well as for working capital and other general corporate purposes. Further details are disclosed in the Preliminary Prospectus, available at www.sedar.com.

#### About Titan

Titan is a Canadian public company focused on research and development through to the planned commercialization of computer-assisted robotic surgical technologies for application in minimally invasive surgery ("MIS"). The Company is currently developing the SPORT Surgical System, a single-port robotic surgical system. The SPORT Surgical System is comprised of a surgeon-controlled patient cart that includes a 3D high definition vision system and multi-articulating instruments for performing MIS procedures, and a surgeon workstation that provides the surgeon with an advanced ergonomic interface to the patient cart and a 3D endoscopic view inside the patient's body during MIS procedures. With the SPORT Surgical System, the Company aims to pursue a broad set of surgical indications, including general abdominal, gynecologic and urologic procedures.

For more information, please visit the Company's website at www.titanmedicalinc.com.

#### Forward-Looking Statements

This news release contains "forward-looking statements" which reflect the current expectations of management of the Company's future growth, results of operations, performance and business prospects and opportunities. Wherever possible, words such as "may", "would", "could", "will", "anticipate", "believe", "plan", "expect", "intend", "estimate", "potential for" and similar expressions have been used to identify these forward-looking statements. These statements, including with respect to the use of the net proceeds of the Offering, reflect management's current beliefs with respect to future events and are based on information currently available to management. Forward-looking statements involve significant risks, uncertainties and assumptions. Many factors could cause the Company's actual results, performance or achievements to be materially different from any future results, performance or achievements that may be expressed or implied by such forward-looking statements, including, without limitation, those listed in the "Risk Factors" section of the Company's Annual Information Form dated March 31, 2017 (which may be viewed at www.sedar.com). Should one or more of these risks or uncertainties materialize, or should assumptions underlying the forward-looking statements prove incorrect, actual results, performance, or achievements may vary materially from those expressed or implied by the forward-looking statements. Although the forward-looking statements contained in the news release are based upon what management currently believes to be reasonable assumptions, the Company cannot assure prospective investors that actual results, performance or achievements with these forward-looking statements.

#### **U.S. Securities Law Caution**

The securities described herein have not been, and will not be, registered under the U.S. Securities Act, or any state securities laws, and accordingly, may not be offered or sold to, or for the account or benefit of, persons in the United States or "U.S. persons", as such term is defined in Regulation S promulgated under the U.S. Securities Act ("U.S. Persons"), except in compliance with the registration requirements of the U.S. Securities Act and applicable state securities requirements or pursuant to exemptions therefrom. This press release does not constitute an offer to sell or a solicitation of an offer to buy any of the Company's securities to, or for the account or benefit of, persons in the United States or U.S. Persons.

Neither the Toronto Stock Exchange (the "TSX") nor its Regulation Services Provider (as that term is defined in the policies of the TSX) accepts responsibility for the adequacy or accuracy of this release.

#### CONTACT INFORMATION

LHA Investor Relations Kim Sutton Golodetz Schedule "B"

[See Attached]

# TITAN MEDICAL.

170 University Avenue • Suite 1000 Toronto, Ontario, Canada M5H 3B3 •Tel: 416.548.7522 info@titanmedicalinc.com • www.titanmedicalic.com

#### Titan Medical Announces Pricing of Marketed Offering of Units

Toronto, ON – (Marketwired – November 15, 2017) – Titan Medical Inc. ("Titan" or the "Company") (TSX: TMD) (OTCQB: TITXF) is pleased to announce today that it has priced its previously announced marketed offering (the "Offering") of units of the Company (the "Units") for minimum gross proceeds of CDN\$13,000,000 and maximum gross proceeds of CDN\$15,000,000. Pursuant to the Offering, Titan will issue Units at a price of CDN \$0.50 per Unit. Each Unit is comprised of one common share of the Company (a "Common Share") and one Common Share purchase warrant of the Company (a "Warrant"). Each Warrant is exercisable for one Common Share at a price of CDN \$0.60, for a period of 5 years following the closing of the Offering.

The Offering will be undertaken on a best efforts basis pursuant to the terms and conditions of an agency agreement to be entered into between the Company and Bloom Burton Securities Inc. (the "**Agent**"). In connection with the Offering, the Agent will be paid a cash commission equal to 7.0% of the gross proceeds of the Offering and it will be issued that number of non-transferable broker warrants exercisable for Common Shares equal to 7.0% of the number of Units sold in the Offering (in each case excluding any Units sold to certain excluded subscribers).

A preliminary short form prospectus in respect of the Offering dated November 14, 2017 (the "**Preliminary Prospectus**") has been filed in each of the provinces of Ontario, British Columbia and Alberta pursuant to National Instrument 44-101 - *Short Form Prospectus Distributions*. In addition, the Units may also be offered for sale in the United States, by or through United States registered broker-dealers appointed by the Agent as sub-agents, and in certain offshore jurisdictions, in each case under available exemptions from the prospectus and registration requirements of applicable securities laws. The Company intends to file an amended and restated preliminary short form prospectus (the "**Amended and Restated Preliminary Prospectus**") with the securities regulatory authorities in each of the provinces of Ontario, British Columbia and Alberta, to provide additional details concerning the Offering, including pricing information.

The net proceeds of the Offering (the "Net Proceeds") will be used to fund continued development work in connection with the Company's SPORT Surgical System, as well as for working capital and other general corporate purposes. Please see "Use of Proceeds" in the Preliminary Prospectus, which is available under the Company's profile at www.sedar.com, for further details of the use of Net Proceeds.

The Common Shares are listed on the Toronto Stock Exchange (the "**TSX**") under the symbol "TMD". An application will be made to list the Common Shares issuable under the Offering for trading on the TSX. Listing will be subject to the Company fulfilling all of the requirements of the TSX.

#### About Titan

Titan is a Canadian public company focused on the design and development of a robotic surgical system for application in minimally invasive surgery ("**MIS**"). The Company's SPORT Surgical System, currently under development, includes a surgeon-controlled robotic platform that includes a 3D high-definition vision system and instruments for performing MIS procedures. The surgical system also includes a surgeon workstation that provides the surgeon with an advanced ergonomic interface to the robotic platform for controlling the instruments and provides a 3D high-definition endoscopic view of inside a patient's body. The SPORT Surgical System is designed to enable surgeons to perform a broad set of surgical procedures for general abdominal, gynecological and urologic indications. For more information, visit the Company's website at www.titanmedicalinc.com.

#### Forward-Looking Statements

This press release contains "forward-looking statements" which reflect the current expectations of management of the Company. Such statements include, but are not limited to, statements regarding receipt of applicable regulatory approvals and the timing thereof, the filing of the Amended and Restated Preliminary Prospectus, the listing of the Common Shares on the TSX and the proposed use of the Net Proceeds. Wherever possible, words such as "may", "would", "could", "will", "anticipate", "believe", "plan", "expect", "intend", "estimate", "potential for" and similar expressions have been used to identify these forward-looking statements. These statements reflect management's current beliefs with respect to future events and are based on information currently available to management. Forward-looking statements involve significant risks, uncertainties and assumptions. Many factors could cause the Company's actual results, performance or achievements to be materially different from any future results, performance or achievements that may be expressed or implied by such forward-looking statements, including, without limitation, those listed in the "Risk Factors" section of the Company's Annual Information Form dated March 31, 2017 (which may be viewed at <u>www.sedar.com</u>). Should one or more of these risks or uncertainties materialize, or should assumptions underlying the forward looking statements prove incorrect, actual results, performance or achievements may vary materially from those expressed or implied by the forward-looking statements contained in this news release. These factors should be considered carefully and prospective investors should not place undue reliance on the forward-looking statements. Although the forward-looking statements contained in the news release are based upon what management currently believes to be reasonable assumptions, the Company cannot assure prospective investors that actual results, performance or achievements will be consistent with these forward-looking statements.

#### **U.S. Securities Law Caution**

The securities described herein have not been, and will not be, registered under the United States Securities Act of 1933, as amended (the "U.S. Securities Act"), or any state securities laws, and accordingly, may not be offered or sold to, or for the account or benefit of, persons in the United States or "U.S. persons", as such term is defined in Regulation S promulgated under the U.S. Securities Act ("U.S. Persons"), except in compliance with the registration requirements of the U.S. Securities Act and applicable state securities requirements or pursuant to exemptions therefrom. This press release does not constitute an offer to sell or a solicitation of an offer to buy any of the Company's securities to, or for the account or benefit of, persons in the United States or U.S. Persons.

### CONTACT INFORMATION

Schedule "C"

[See Attached]

# TITAN MEDICAL.

#### Titan Medical Announces Filing of Amended and Restated Preliminary Prospectus

#### NOT FOR DISTRIBUTION TO UNITED STATES NEWSWIRE SERVICES OR FOR DISSEMINATION IN THE UNITED STATES

TORONTO, Nov. 17, 2017 -- Titan Medical Inc. ("Titan" or the "Company") (TSX:TMD) (OTCQB:TITXF) advises that it has filed an amended and restated preliminary short-form prospectus (the "Amended Prospectus") which amends its preliminary short-form prospectus dated November 14, 2017 related to the previously announced marketed offering (the "Offering") of units of the Company (the "Units") for minimum gross proceeds of CDN\$13,000,000 and maximum gross proceeds of CDN\$15,000,000. Pursuant to the Offering, Titan will issue Units at a price of CDN \$0.50 per Unit. Each Unit is comprised of one common share of the Company (a "Warrant"). Each Warrant is exercisable for one Common Share at a price of CDN \$0.60, for a period of 5 years following the closing of the Offering.

The Offering will be undertaken on a best efforts basis pursuant to the terms and conditions of an agency agreement to be entered into between the Company and Bloom Burton Securities Inc. (the "Agent"). In connection with the Offering, the Agent will be paid a cash commission equal to 7.0% of the gross proceeds of the Offering and it will be issued that number of non-transferable broker warrants exercisable for Common Shares equal to 7.0% of the number of Units sold in the Offering (in each case excluding any Units sold to certain excluded subscribers). The Company has granted the Agent an option, exercisable in whole or in part at any time and from time to time on the first Closing Date or for a period of 30 days following the first Closing Date, to offer for sale such number of additional Units (the "**Over-Allotment Units**") and/or Warrants (the "**Over-Allotment Warrants**") as is equal to 15% of the number of Units issued under the Offering, solely to cover over-allotments, if any, and for market stabilization purposes.

The Amended Prospectus has been filed in each of the provinces of Ontario, British Columbia and Alberta pursuant to National Instrument 44-101 -*Short Form Prospectus Distributions*. In addition, the Units may also be offered for sale in the United States, by or through United States registered broker-dealers appointed by the Agent as subagents, and in certain offshore jurisdictions, in each case under available exemptions from the prospectus and registration requirements of applicable securities laws.

The net proceeds of the Offering (the "Net Proceeds") will be used to fund continued development work in connection with the Company's SPORT Surgical System, as well as for working capital and other general corporate purposes. Please see "Use of Proceeds" in the Amended Prospectus, which is available under the Company's profile at www.sedar.com, for further details of the use of Net Proceeds.

The Common Shares are listed on the Toronto Stock Exchange (the **'TSX'**) under the symbol "TMD". An application will be made to list the Common Shares issuable under the Offering for trading on the TSX. Listing will be subject to the Company fulfilling all of the requirements of the TSX.

#### About Titan

Titan is a Canadian public company focused on the design and development of a robotic surgical system for application in minimally invasive surgery (**MIS**"). The Company's SPORT Surgical System, currently under development, includes a surgeon -controlled robotic platform that includes a 3D high-definition vision system and instruments for performing MIS procedures. The surgical system also includes a surgeon workstation that provides the surgeon with an advanced ergonomic interface to the robotic platform for controlling the instruments and provides a 3D high-definition endoscopic view of inside a patient's body. The SPORT Surgical System is designed to enable surgeons to perform a broad set of surgical procedures for general abdominal, gynecological and urologic indications. For more information, visit the Company's website at www.titanmedicalinc.com.

#### Forward-Looking Statements

This press release contains "forward-looking statements" which reflect the current expectations of management of the Company. Such statements include, but are not limited to, statements regarding the listing of the Common Shares on the TSX and the proposed use of the Net Proceeds. Wherever possible, words such as "may", "would", "could", "will", "anticipate", "believe", "plan", "expect", "intend", "estimate", "potential for" and similar expressions have been used to identify these forward-looking statements. These statements reflect management's current beliefs with respect to future events and are based on information currently available to management. Forward-looking statements involve significant risks, uncertainties and assumptions. Many factors could cause the Company's actual results, performance or achievements to be materially different from any future results, performance or achievements that may be expressed or implied by such forward-looking statements, including, without limitation, those listed in the "Risk Factors" section of the Company's Annual Information Form dated March 31, 2017 (which may be viewed at <u>www.sedar.com</u>). Should one or more of these risks or uncertainties materialize, or should assumptions underlying the forward looking statements prove incorrect, actual results, performance or achievements may vary materially from those expressed or implied by the forward-looking statements contained in this news release. These factors should be considered carefully and prospective investors should not place undue reliance on the forward-looking statements. Although the forward-looking statements contained in the news release are based upon what management currently believes to be reasonable assumptions, the Company cannot assure prospective investors that actual results, performance or achievements will be consistent with these forward-looking statements.

#### **U.S. Securities Law Caution**

The securities described herein have not been, and will not be, registered under the United States Securities Act of 1933, as amended (the **'U.S. Securities Act**''), or any state securities laws, and accordingly, may not be offered or sold to, or for the account or benefit of, persons in the United States or "U.S. persons", as such term is defined in Regulation S promulgated under the U.S. Securities Act (**''U.S. Persons**''), except in compliance with the registration requirements of the U.S. Securities Act and applicable state securities requirements or pursuant to exemptions therefrom. This press release does not constitute an offer to sell or a solicitation of an offer to buy any of the Company's securities to, or for the account or benefit of, persons in the United States or U.S. Persons.

#### CONTACT INFORMATION

Schedule "D"

[See Attached]

# TITAN MEDICAL.

170 University Avenue • Suite 1000 Toronto, Ontario, Canada M5H 3B3 •Tel: 416.548.7522 info@titanmedicalinc.com • www.titanmedicalic.com

# Titan Medical Announces Upsizing of Previously Announced Marketed Offering of Units

Toronto, ON – (Marketwired – November 20, 2017) – Titan Medical Inc. ("Titan" or the "Company") (TSX: TMD) (OTCQB: TITXF) is pleased to announce the upsizing of the previously announced marketed offering (the "Offering") of units of the Company (the "Units"). Based on strong investor demand, the board has approved an increase in the minimum Offering to CDN\$18,000,000 (from CDN\$13,000,000) and the maximum Offering to CDN\$23,000,000 (from CDN\$15,000,000). Pursuant to the Offering, Titan will issue Units at a price of CDN \$0.50 per Unit. Each Unit is comprised of one common share of the Company (a "Common Share") and one Common Share purchase warrant of the Company (a "Warrant"). Each Warrant is exercisable for one Common Share at a price of CDN \$0.60, for a period of five years following the closing of the Offering. The agent will not be granted any over-allotment option.

David McNally, President and CEO of Titan Medical, said, "We are delighted that the investment community has responded enthusiastically to the Offering, acknowledging the significant progress that the Company has made in achieving its milestones, as well as its prospects for the future."

In connection with the foregoing, the Company intends to file a second amended and restated preliminary short form prospectus in each of the provinces of Ontario, British Columbia and Alberta pursuant to National Instrument 44-101 - *Short Form Prospectus Distributions*. In addition, the Units may also be offered for sale in the United States, by or through United States registered broker-dealers appointed by the Agent as sub-agents, and in certain offshore jurisdictions, in each case under available exemptions from the prospectus and registration requirements of applicable securities laws.

### About Titan

Titan is a Canadian public company focused on the design and development of a robotic surgical system for application in minimally invasive surgery (**MIS**"). The Company's SPORT Surgical System, currently under development, includes a surgeon-controlled robotic platform that includes a 3D high-definition vision system and instruments for performing MIS procedures. The surgical system also includes a surgeon workstation that provides the surgeon with an advanced ergonomic interface to the robotic platform for controlling the instruments and provides a 3D high-definition endoscopic view of inside a patient's body. The SPORT Surgical System is designed to enable surgeons to perform a broad set of surgical procedures for general abdominal, gynecological and urologic indications. For more information, visit the Company's website at www.titanmedicaline.com.

### Forward-Looking Statements

This press release contains "forward-looking statements" which reflect the current expectations of management of the Company. Such statements include, but are not limited to, statements regarding the filing of an amended and restated preliminary short form prospectus. Wherever possible, words such as "may", "would", "could", "will", "anticipate", "believe", "plan", "expect", "intend", "estimate", "potential for" and similar expressions have been used to identify these forward-looking statements. These statements reflect management's current beliefs with respect to future events and are based on information currently available to management. Forward-looking statements involve significant risks, uncertainties and assumptions. Many factors could cause the Company's actual results, performance or achievements to be materially different from any future results, performance or achievements that may be expressed or implied by such forward-looking statements, including, without limitation, those listed in the "Risk Factors" section of the Company's Annual Information Form dated March 31, 2017 (which may be viewed at <u>www.sedar.com</u>). Should one or more of these risks or uncertainties materialize, or should assumptions underlying the forward-looking statements prove incorrect, actual results, performance or achievements may vary materially from those expressed or implied by the forward-looking statements. Although the forward-looking statements contained in the news release are based upon what management currently believes to be reasonable assumptions, the Company cannot assure prospective investors that actual results, performance or achievements will be consistent with these forward-looking statements.

### **U.S. Securities Law Caution**

The securities described herein have not been, and will not be, registered under the United States Securities Act of 1933, as amended (the **'U.S. Securities Act**''), or any state securities laws, and accordingly, may not be offered or sold to, or for the account or benefit of, persons in the United States or "U.S. persons", as such term is defined in Regulation S promulgated under the U.S. Securities Act (**''U.S. Persons**''), except in compliance with the registration requirements of the U.S. Securities Act and applicable state securities requirements or pursuant to exemptions therefrom. This press release does not constitute an offer to sell or a solicitation of an offer to buy any of the Company's securities to, or for the account or benefit of, persons in the United States or U.S. Persons.

# CONTACT INFORMATION

LHA Investor Relations Kim Sutton Golodetz (212) 838-3777 kgolodetz@lhai.com or Bruce Voss (310) 691-7100 bvoss@lhai.com Schedule "E"

[See Attached]



# Titan Medical Announces Filing of Second Amended and Restated Preliminary Prospectus

# NOT FOR DISTRIBUTION TO UNITED STATES NEWSWIRE SERVICES OR FOR DISSEMINATION IN THE UNITED STATES

TORONTO, Nov. 23, 2017 -- **Titan Medical Inc. ("Titan" or the "Company")**(TSX:TMD) (OTCQB:TITXF) advises that it has filed and has obtained a receipt for an amended and restated preliminary short form prospectus (the "**Second Amended Prospectus**") which amends and restates its previously filed amended and restated short form prospectus dated November 16, 2017 which, in turn, amended and restated its preliminary short form prospectus dated November 14, 2017 in connection with the marketed offering (the "**Offering**") of units of the Company (the "**Units**"). The Second Amended Prospectus provides for the previously announced increase of the minimum gross proceeds of the Offering to CDN\$18,000,000 (from CDN \$13,000,000) and the maximum gross proceeds of the Offering to CDN\$23,000,000 (from CDN \$15,000,000). Pursuant to the Offering, Titan will issue Units at a price of CDN \$0.50 per Unit. Each Unit is comprised of one common share of the Company (a "**Common Share**") and one Common Share purchase warrant of the Company (a "**Warrant**"). Each Warrant is exercisable for one Common Share at a price of CDN \$0.60, for a period of 5 years following the closing of the Offering.

The Offering will be undertaken on a best efforts basis pursuant to the terms and conditions of an agency agreement to be entered into between the Company and Bloom Burton Securities Inc. (the "Agent"). In connection with the Offering, the Agent will be paid a cash commission equal to 7.0% of the gross proceeds of the Offering and it will be issued that number of non-transferable broker warrants exercisable for Common Shares equal to 7.0% of the number of Units sold in the Offering (in each case excluding any Units sold to certain excluded subscribers).

The Second Amended Prospectus has been filed in each of the provinces of Ontario, British Columbia and Alberta pursuant to National Instrument 44-101 -*Short Form Prospectus Distributions*. In addition, the Units may also be offered for sale in the United States, by or through United States registered broker-dealers appointed by the Agent as sub-agents, and in certain offshore jurisdictions, in each case under available exemptions from the prospectus and registration requirements of applicable securities laws.

The net proceeds of the Offering (the "**Net Proceeds**") will be used to fund continued development work in connection with the Company's SPORT Surgical System, as well as for working capital and other general corporate purposes. Please see "Use of Proceeds" in the Second Amended Prospectus, which is available under the Company's profile at www.sedar.com, for further details of the use of Net Proceeds.

The Common Shares are listed on the Toronto Stock Exchange (the "TSX") under the symbol "TMD". An application has been made to list the Common Shares issuable under the Offering for trading on the TSX. Listing will be subject to the Company fulfilling all of the requirements of the TSX.

### About Titan

Titan is a Canadian public company focused on the design and development of a robotic surgical system for application in minimally invasive surgery (**MIS**"). The Company's SPORT Surgical System, currently under development, includes a surgeon -controlled robotic platform that includes a 3D high-definition vision system and instruments for performing MIS procedures. The surgical system also includes a surgeon workstation that provides the surgeon with an advanced ergonomic interface to the robotic platform for controlling the instruments and provides a 3D high-definition endoscopic view of inside a patient's body. The SPORT Surgical System is designed to enable surgeons to perform a broad set of surgical procedures for general abdominal, gynecological and urologic indications. For more information, visit the Company's website at www.titanmedicaline.com.

# Forward-Looking Statements

This press release contains "forward-looking statements" which reflect the current expectations of management of the Company. Such statements include, but are not limited to, statements regarding the listing of the Common Shares on the TSX and the proposed use of the Net Proceeds. Wherever possible, words such as "may", "would", "could", "will", "anticipate", "believe", "plan", "expect", "intend", "estimate", "potential for" and similar expressions have been used to identify these forward-looking statements. These statements reflect management's current beliefs with respect to future events and are based on information currently available to management. Forward-looking statements involve significant risks, uncertainties and assumptions. Many factors could cause the Company's actual results, performance or achievements to be materially different from any future results, performance or achievements that may be expressed or implied by such forward-looking statements, including, without limitation, those listed in the "Risk Factors" section of the Company's Annual Information Form dated March 31, 2017 (which may be viewed at <u>www.sedar.com</u>). Should one or more of these risks or uncertainties materialize, or should assumptions underlying the forward looking statements prove incorrect, actual results, performance or achievements may vary materially from those expressed or implied by the forward-looking statements contained in this news release. These factors should be considered carefully and prospective investors should not place undue reliance on the forward-looking statements. Although the forward-looking statements contained in the news release are based upon what management currently believes to be reasonable assumptions, the Company cannot assure prospective investors that actual results, performance or achievements will be consistent with these forward-looking statements.

# **U.S. Securities Law Caution**

The securities described herein have not been, and will not be, registered under the United States Securities Act of 1933, as amended (the "U.S. Securities Act"), or any state securities laws, and accordingly, may not be offered or sold to, or for the account or benefit of, persons in the United States or "U.S. persons", as such term is defined in Regulation S promulgated under the U.S. Securities Act ("U.S. Persons"), except in compliance with the registration requirements of the U.S. Securities Act and applicable state securities requirements or pursuant to exemptions therefrom. This press release does not constitute an offer to sell or a solicitation of an offer to buy any of the Company's securities to, or for the account or benefit of, persons in the United States or U.S. Persons.

# CONTACT INFORMATION

LHA Investor Relations Kim Sutton Golodetz (212) 838-3777 kgolodetz@lhai.com or Bruce Voss (310) 691-7100 bvoss@lhai.com

# AGENCY AGREEMENT

November 30, 2017

Titan Medical Inc. 170 University Avenue, Suite 1000 Toronto, Ontario M5H 3B3

# Attention: David J. McNally, President and Chief Executive Officer

Dear Sir:

Bloom Burton Securities Inc. (the "Agent") understands that Titan Medical Inc. (the "Corporation") proposes to issue and sell a minimum of 36,000,000 units of the Corporation (the "Offered Units") and up to a maximum of 46,000,000 Offered Units at a price of \$0.50 per Offered Unit (the 'Offering Price') for aggregate gross proceeds of a minimum of \$18,000,000 (the "Minimum Offering") and a maximum of \$23,000,000 (the "Maximum Offering"). Each Offered Unit shall consist of (i) one Common Share (as defined herein) (a "Unit Share") and (ii) one Common Share purchase warrant (a "Warrant"). Each Warrant shall be issued pursuant to and subject to the terms of the Warrant Indenture (as defined herein) Each Warrant shall entitle the holder thereof to purchase one Common Share (a "Warrant Share") at an exercise price of \$0.60 per Warrant Share, subject to adjustment, at any time unit 5:00 p.m. (Toronto time) on the date that is 60 months after the Initial Closing Date (as defined herein). The offering of the Offered Units by the Corporation is hereinafter referred to as the "Offering".

The Corporation wishes to appoint the Agent to act as its sole and exclusive agent, and to effect the sale of the Offered Units on a best efforts basis. The Agent shall be entitled to appoint a soliciting dealer group consisting of other registered dealers acceptable to the Corporation (each, a "Selling Firm") for the purpose of arranging for purchases of the Offered Units.

It is further understood and agreed that the Corporation shall be entitled to offer and sell Offered Units pursuant to the Offering to certain subscribers on a president's list or other excluded subscribers and settling directly with the Corporation (the "**President's List Subscribers**"); provided, however, that (i) the Agent and any Selling Firm shall not be required to conduct a suitability review in respect of sales by the Corporation of Offered Units to any President's List Subscriber; (ii) the Agent and any Selling Firm shall not be obligated, and may, in their sole discretion, refuse to process any subscription for Offered Units from any President's List Subscriber; and (iii) the Corporation shall indemnify and save harmless the Agent, any Selling Firm and any Indemnified Party (as defined herein) for and against all losses relating to any sales of Offered Units by the Corporation to any President's List Subscriber.

In consideration of the Agent's services hereunder, the Corporation agrees to pay to the Agent on each Closing Date a fee (the "Agency Fee") equal to 7.0% of the gross proceeds realized by the Corporation in respect of the sale of the Offered Units (excluding any Offered Units sold to any President's List Subscriber) on such Closing Date. Proceeds raised through the sale of Offered Units to President's List Subscribers will not be subject to any commission and will in no way make up the Agency Fee. As additional consideration for its services performed under this Agreement (as defined herein), the Corporation shall issue to the Agent, on each Closing Date (in such name or names as the Agent may direct in writing) compensation warrants (the "Compensation Warrants") exercisable to acquire that number of Common Shares (the 'Compensation Shares') as is equal to 7.0% of the Offered Units sold under the Offering (excluding any Offered Units sold to any President's List Subscriber) on such Closing Date. Each Compensation Warrant shall be exercisable, in whole or in part, at an exercise price per Compensation Share equal to the Offering Price at any time before 5:00 p.m. (Toronto time) on the date that is 24 months following the Initial Closing Date.

The obligation of the Corporation to pay the Agency Fee and to issue the Compensation Warrants shall arise at the Closing Time (as defined herein) against payment for the Offered Units, and the Agency Fee and the Compensation Warrants shall be fully earned by the Agent at such time.

The completion of the Offering may occur in one or more separate closings on one or more dates (each, a 'Closing Date') as the Corporation and the Agent may agree. Provided that the Minimum Offering is subscribed for, it is expected that the Initial Closing Date will occur on or about December 5, 2017, or such other date as the Corporation and the Agent may agree.

If subscriptions for the Minimum Offering have not been received within 10 days following the date of the Final Receipt (as defined herein), the Offering will not continue and the subscription proceeds will be returned to subscribers, without interest or deduction. In any event, the total period of the distribution will not end more than 30 days from the date of the Final Receipt. Should a Closing occur in respect of the Minimum Offering, one or more additional Closings, if necessary, may occur until the earlier of the Maximum Offering being subscribed and the expiry of the 30 day period.

It is understood that the Offered Units will be offered to Purchasers (as defined herein) resident in: (i) each of the provinces of British Columbia, Alberta and Ontario (collectively, the "**Canadian Selling Jurisdictions**"); and (ii) jurisdictions other than the Canadian Selling Jurisdictions as may mutually be agreed to by the Corporation and the Agent, including the United States in accordance with Schedule "'D" hereto, (collectively with the Canadian Selling Jurisdictions, the "**Selling Jurisdictions**"), on a private placement basis, provided that the Corporation is not required to file a prospectus, registration statement or other disclosure document or become subject to continuing obligations in such other jurisdictions, in each case in accordance with the provisions of this Agreement. With respect to the offer or sale of any Offered Units in the United States or to, or for the account or benefit of, U.S. Persons (as defined herein), the parties to this Agreement acknowledge and agree that the Agent may appoint duly registered U.S. broker-dealers (each, a "U.S. Selling Group Member") to act as sub-agents to conduct offers and sales of the Offered Securities in the United States or to. S. Persons.

# DEFINITIONS

Unless expressly provided otherwise, where used in this Agreement, the following terms shall have the following meanings:

"affiliate", "associate", "material change", "material fact" and "misrepresentation" shall have the respective meanings ascribed thereto under Applicable Securities Laws of the Canadian Selling Jurisdictions;

"Agency Fee" has the meaning ascribed thereto in the fourth paragraph of this Agreement;

"Agent" has the meaning ascribed thereto in the first paragraph of this Agreement;

"Agreement" means the agreement resulting from the acceptance by the Corporation of the offer made hereby;

"Amended and Restated Preliminary Prospectus" means the amended and restated preliminary short form prospectus of the Corporation, including all of the Documents Incorporated by Reference, dated November 16, 2017 relating to the Distribution of the Offered Units and for which a receipt has been issued by the Ontario Securities Commission, as principal regulator, the British Columbia Securities Commission and the Alberta Securities Commission pursuant to the Passport System; "Applicable IP Laws" means, with respect to a specific Intellectual Property, all applicable federal, provincial, state and local laws and regulations applicable to that Intellectual Property in the countries where rights in such Intellectual Property arise, the countries including Canada, the United States, the European Union and the jurisdictions in which the Corporation has registered Intellectual Property;

"Applicable Laws" means all applicable federal, provincial, state and local laws and regulations of authorities having jurisdiction over the Corporation or the Agent, as applicable;

"Applicable Securities Laws" means, collectively, the applicable securities laws of the Canadian Selling Jurisdictions, the regulations, rules, rulings and orders made thereunder, the applicable published policy statements issued by the applicable securities commissions thereunder, the rules and policies of the TSX and the OTCQB and the securities legislation and published policies of each Selling Jurisdiction;

"Applied for Corporation IP" means all Corporation IP that is the subject of an application with a national intellectual property office (including the CIPO and the USPTO);

"Audited Financial Statements" means the audited financial statements of the Corporation as at and for its fiscal years ended December 31, 2016 and 2015;

"Business Day" means a day which is not a Saturday, Sunday or statutory or civic holiday in the City of Toronto, Ontario;

"Canadian Securities Regulators" means, collectively, the applicable securities commission or securities regulatory authority in each of the Canadian Selling Jurisdictions;

"Canadian Selling Jurisdictions" has the meaning ascribed thereto in the eighth paragraph of this Agreement;

"CDS" means CDS Clearing and Depository Services Inc.;

"CIPO" means the Canadian Intellectual Property Office;

"Claims" has the meaning ascribed thereto in Section 12;

"Closing" means the Initial Closing or any Subsequent Closing, as the case may be;

"Closing Date" has the meaning ascribed thereto in the sixth paragraph of this Agreement;

"Closing Time" means 8:00 a.m. (Toronto time) on the Closing Date or such other time on the Closing Date as the Corporation and the Agent may agree;

"Common Shares" means the common shares in the capital of the Corporation, which the Corporation is authorized to issue, as constituted on the date hereof;

"comparables" has the meaning ascribed thereto in NI 41-101;

"Compensation Warrants" has the meaning ascribed thereto in the fourth paragraph of this Agreement;

- 4 -

"Compensation Shares" has the meaning ascribed thereto in the fourth paragraph of this Agreement;

"Compensation Warrant Certificates" means the certificates representing the Compensation Warrants;

"Corporation" has the meaning ascribed thereto in the first paragraph of this Agreement;

"Corporation's Auditors" means BDO Canada LLP, Chartered Accountants;

"Corporation IP" means the Intellectual Property identified in Schedule "B" and Schedule "C" to this Agreement;

"Disclosure Record" means all information contained in any press releases, material change reports, financial statements, prospectuses, annual and quarterly reports or other document of the Corporation which has been publicly filed on SEDAR by, or on behalf of, the Corporation pursuant to Applicable Securities Laws of the Canadian Selling Jurisdictions;

"Distribution" means "distribution" or "distribution to the public" as those terms are defined under Applicable Securities Laws of the Canadian Selling Jurisdictions;

"Documents Incorporated by Reference" means all financial statements, management's discussion and analysis, management information circulars, annual information forms, material change reports or other documents issued by the Corporation, whether before or after the date of this Agreement, that are required by NI 44-101 to be incorporated by reference into the Prospectus or any Prospectus Amendment;

"Due Diligence Session" has the meaning ascribed thereto in subsection 6(b);

"Eligible Issuer" means an issuer that meets the criteria and has complied with the requirements of NI 44-101 so as to allow it to offer its securities using a short form prospectus;

"Engagement Letter" means the engagement letter dated October 26, 2017 between the Corporation and the Agent relating to the Offering;

"Environmental Laws" has the meaning ascribed thereto in subsection 7(ll);

"FDA" means the U.S. Food and Drug Administration of the U.S. Department of Health & Human Services;

"Final Prospectus" means the (final) short form prospectus of the Corporation, including all of the Documents Incorporated by Reference, to be dated on or about the date hereof relating to the Distribution of the Offered Units and for which a receipt will have been issued by the Ontario Securities Commission, as principal regulator, the British Columbia Securities Commission and the Alberta Securities Commission pursuant to the Passport System;

"Final Receipt" means a receipt or deemed receipt for the Final Prospectus issued by the Securities Regulators;

"Financial Statements" means the Audited Financial Statements and the Interim Financial Statements;

"Indemnified Party" or "Indemnified Parties" has the meaning ascribed thereto in Section 12;

"Initial Closing" means the completion of the initial issue and sale by the Corporation of the Offered Units and Compensation Warrants pursuant to this Agreement;

"Initial Closing Date" means December 5, 2017 or such other date as may be agreed upon between the Corporation and the Agent for the Initial Closing that is not later than 30 days after the Final Receipt is issued;

"Institutional Accredited Investor" means an institutional "accredited investor" within the meaning of Rule 501(a)(1), (2), (3) or (7) of Regulation D;

"Intellectual Property" means all copyrights, patents, patent rights, industrial designs, know-how (including trade secrets and other unpatented or unpatentable proprietary or confidential information, systems or procedures);

"Interim Financial Statements" means the unaudited condensed interim financial statements of the Corporation as at and for the three and nine month periods ended September 30, 2017 and 2016;

"knowledge" means, as it pertains to the Corporation, the actual knowledge, after due inquiry, of the President and Chief Executive Officer, the Chief Financial Officer and, in the case of matters relating to Corporation IP and Licensed IP, the employee of the Corporation that is the most responsible for directing such matters;

"Leased Premises" has the meaning ascribed thereto in subsection 7(00);

"Licensed IP" means the Intellectual Property owned by any person other than the Corporation and to which the Corporation has a license which has not expired or been terminated;

"marketing materials" has the meaning ascribed thereto in NI 41-101;

"Material Adverse Effect" means any change, event, violation, inaccuracy, circumstance or effect that is materially adverse to the business, assets (including intangible assets), capitalization, financial condition or results of operations of the Corporation, whether or not arising in the ordinary course of business;

"Material Agreement" means any "material contract" required to be filed on SEDAR by the Corporation pursuant to NI 51-102;

"Material Permits" has the meaning ascribed thereto in subsection 7(tt);

"Maximum Offering" has the meaning ascribed thereto in the first paragraph of this Agreement;

"MI 11-102" means Multilateral Instrument 11-102 - Passport System;

"Minimum Offering" has the meaning ascribed thereto in the first paragraph of this Agreement;

"NI 41-101" means National Instrument 41-101 - General Prospectus Requirements;

"NI 44-101" means National Instrument 44-101 - Short Form Prospectus Distributions;

"NI 51-102" means National Instrument 51-102 - Continuous Disclosure Obligations;

"NP 11-202" means National Policy 11-202 - Process for Prospectus Reviews in Multiple Jurisdictions,

"Notice" has the meaning ascribed thereto in Section 17;

"Offered Units" has the meaning ascribed thereto in the first paragraph of this Agreement;

"Offering" has the meaning ascribed thereto in the first paragraph of this Agreement;

"Offering Documents" has the meaning ascribed to such term in subsection 5(a)(iii);

"Offering Price" has the meaning ascribed thereto in the first paragraph of this Agreement;

"Passport System" means the system and process for prospectus reviews provided for under MI 11-102 and NP 11-202;

"person" shall be interpreted broadly and shall include any individual, corporation, partnership, joint venture, association, trust or other legal entity;

"Preliminary Prospectus" means the preliminary short form prospectus of the Corporation, including all of the Documents Incorporated by Reference, dated November 14, 2017 relating to the Distribution of the Offered Units and for which a receipt has been issued by the Ontario Securities Commission, as principal regulator, the British Columbia Securities Commission and the Alberta Securities Commission pursuant to the Passport System;

"President's List Subscribers" has the meaning ascribed thereto in the third paragraph of this Agreement;

"Prospectus" means, as the context requires, the Preliminary Prospectus, the Amended and Restated Preliminary Prospectus, the Second Amended and Restated Preliminary Prospectus and/or the Final Prospectus, including any Prospectus Amendment;

"Prospectus Amendment" means any amendment or supplement to the Prospectus;

"Purchasers" means any persons who acquire Offered Units at the Closing Time;

"Registered Corporation IP" means all Corporation IP that is the subject of a registration with a national intellectual property office (including the CIPO and the USPTO);

"Regulation D" means Regulation D promulgated under the U.S. Securities Act;

"Regulation S" means Regulation S promulgated under the U.S. Securities Act;

"Regulatory Authority" means the statutory or governmental bodies authorized under Applicable Laws to protect and promote public health through regulation and supervision of therapeutic drug candidates intended for use in humans, including the FDA and Health Canada and any other regulatory or governmental agency having jurisdiction over the Corporation or its activities;

"Second Amended and Restated Preliminary Prospectus" means the second amended and restated preliminary short form prospectus of the Corporation, including all of the Documents Incorporated by Reference, dated November 21, 2017 relating to the Distribution of the Offered Units and for which a receipt has been issued by the Ontario Securities Commission, as principal regulator, the British Columbia Securities Commission and the Alberta Securities Commission pursuant to the Passport System;

"Securities Regulators" means the applicable securities regulatory authorities in the Selling Jurisdictions, including the Canadian Securities Regulators and the TSX;

"SEDAR" means the system for electronic document analysis and retrieval operated by the Canadian Securities Administrators;

"Selling Firm" has the meaning ascribed thereto in the second paragraph of this Agreement;

"Selling Jurisdictions" has the meaning ascribed thereto in the eighth paragraph of this Agreement;

"SR&ED" has the meaning ascribed thereto in subsection 7(k);

"Standard Listing Conditions" means the standard post-Closing conditions imposed by the TSX in the TSX Letter which shall, for the avoidance of doubt, exclude any requirement for shareholder approval;

"standard term sheet" has the meaning ascribed thereto in NI 41-101;

"Subsequent Closing" has the meaning set out in Section 8;

"Subsequent Closing Date" means such date as may be agreed upon between the Corporation and the Agent for the Subsequent Closing but in any event shall be not later than the date that is 30 days after the date of the Final Receipt;

"Taxes" has the meaning ascribed thereto in subsection 7(j);

"template version" has the meaning ascribed thereto in NI 41-101;

"Transfer Agent" means Computershare Investor Services Inc.;

"TSX" means the Toronto Stock Exchange;

"TSX Letter" means the conditional approval letter dated November 29, 2017 issued by the TSX in respect of the Offering;

"TSX Manual" means the TSX Company Manual;

"Unit Share" has the meaning ascribed thereto in the first paragraph of this Agreement;

"United States" or "U.S." means the United States of America, its territories and possessions, any state of the United States, and the District of Columbia;

"USPTO" means the United States Patent and Trademark Office;

"U.S. Exchange Act" means the United States Securities and Exchange Act of 1934;

"U.S. Memorandum" has the meaning ascribed thereto in subsection 4(a)(iii);

"U.S. Person" means a "U.S. person" as such term is defined in Regulation S;

"U.S. Securities Act" means the U.S. Securities Act of 1933;

"U.S. Selling Group Member" has the meaning ascribed thereto in the eighth paragraph of this Agreement;

"Warrant" has the meaning ascribed thereto in the first paragraph of this Agreement;

"Warrant Indenture" means the warrant indenture between the Corporation and Computershare Trust Company of Canada, in its capacity as warrant agent, governing the Warrants; and

"Warrant Share" has the meaning ascribed thereto in the first paragraph of this Agreement.

The following are the schedules attached to this Agreement, which schedules are deemed to be a part hereof and are hereby incorporated by reference herein:

| Schedule "A" | - | Convertible Securities                        |
|--------------|---|-----------------------------------------------|
| Schedule "B" | - | Corporation IP                                |
| Schedule "C" | - | Licensor Contracts                            |
| Schedule "D" | - | Compliance with United States Securities Laws |

# TERMS AND CONDITIONS

## 1. Nature of the Transaction

Based upon the foregoing and subject to the terms and conditions set out below, the Corporation hereby appoints the Agent to act as its sole and exclusive agent, and the Agent hereby accepts such appointment, to effect the sale of the Offered Units for an aggregate purchase price of a minimum amount equal to the Minimum Offering and up to a maximum amount equal to the Maximum Offering, on a best efforts basis to persons resident in the Selling Jurisdictions. The Agent agrees to use its best efforts to sell the Offered Units, but it is hereby understood and agreed that the Agent shall act as agent only and is under no obligation to purchase any of the Offered Units, although the Agent will be subject to subscriptions being received for the Minimum Offering. All funds received by the Agent will be held in trust until the Minimum Offering has been attained. Notwithstanding any other term of this Agreement, all subscription funds received by the Agent will be returned to the Purchasers if the Minimum Offering is not attained by the Closing Time.

During the Distribution of the Offered Units, the Corporation and Agent shall approve in writing (prior to such time that marketing materials are provided to potential investors) any marketing materials reasonably requested to be provided by the Agent to any potential investor of Offered Units, such marketing materials to comply with Applicable Securities Laws of the Canadian Selling Jurisdictions. The Agent shall provide a copy of any marketing materials used in connection with the Offering, to the Corporation in accordance with this Section 1. The Corporation shall file a template version and any revised template version of such marketing materials with the Canadian Securities Regulators as soon as reasonably practicable after such marketing materials are so approved in writing by the Corporation and the Agent, and in any event on or before the day the marketing materials are first provided to any potential investor of Offered Units, and such filing shall constitute the Agent's authority to use such marketing materials in connection with the Offering. Any comparables shall be redacted from the template version in accordance with NI 44-101 prior to filing such template version with the Canadian Securities Regulators and a complete template version containing such comparables and any disclosure relating to the comparables, if any, shall be delivered to the Canadian Securities Regulators by the Corporation.

The Corporation and the Agent, on a several basis, covenant and agree:

(a) not to provide any potential investor of Offered Units with any marketing materials unless a template version of such marketing materials has been filed by the Corporation with the Canadian Securities Regulators on or before the day such marketing materials are first provided to any potential investor of Offered Units;

- (b) not to provide any potential investor with any materials or information in relation to the Distribution of the Offered Units or the Corporation other than: (i) such marketing materials that have been approved and filed in accordance with this Section 1; (ii) the Prospectus and any Prospectus Amendments; and (iii) any standard term sheets approved in writing by the Corporation and the Agent; and
- (c) that any marketing materials approved and filed in accordance with this Section 1 and any standard term sheets approved in writing by the Corporation and the Agent shall only be provided to potential investors in the Selling Jurisdictions where the provision of such marketing materials or standard term sheets does not contravene Applicable Securities Laws.

# 2. Final Prospectus

The Corporation shall, as soon as possible following the execution of this Agreement, use its commercially reasonable efforts to: (i) prepare and file the Final Prospectus in each of the Canadian Selling Jurisdictions; (ii) obtain, pursuant to the Passport System, the Final Receipt; and (iii) take all other steps and proceedings that may be necessary to be taken by the Corporation in order to: (A) qualify the Offered Units for Distribution in each of the Canadian Selling Jurisdictions under Applicable Securities Laws; and (B) qualify the grant of the Compensation Warrants for Distribution in each of the Canadian Selling Jurisdictions under Applicable Securities Laws, on or before 5:00 p.m. (Toronto time) on the date hereof or such later date as the Corporation and the Agent may agree.

Until the date on which the Distribution of the Offered Units is completed, the Corporation will promptly take, or cause to be taken, all additional steps and proceedings that may from time to time be required or desirable under Applicable Securities Laws of the Canadian Selling Jurisdictions to continue to qualify the Distribution of the Offered Units and the Compensation Warrants, or, in the event that the Offered Units or the Compensation Warrants have, for any reason, ceased to so qualify, to so qualify again the Offered Units and the Compensation Warrants for Distribution in the Canadian Selling Jurisdictions.

# 3. Covenants and Representations of the Agent

- (a) The Agent has complied and will comply, and shall require any other Selling Firm with which the Agent has a contractual relationship in respect of the Distribution of the Offered Units (including, for the avoidance of doubt, the U.S. Selling Group Members) to comply, with Applicable Securities Laws in connection with the Distribution of the Offered Units, including the U.S. selling restrictions imposed by the laws of the United States and set forth in Schedule "D" to this Agreement, shall ensure that each Selling Firm agrees to comply with the covenants and obligations given by the Agent herein, to the extent applicable, and shall offer the Offered Units for sale to the public in the Selling Jurisdictions directly and through Selling Firms upon the terms and conditions set out in the Prospectus and this Agreement. The Agent agrees to obtain such an agreement of each Selling Firm. The Agent has offered and will offer, and shall require any Selling Firm to offer, for sale to the public and sell the Offered Units only in those jurisdictions where they may be lawfully offered for sale or sold.
- (b) The Agent shall, and shall require any Selling Firm to agree to, distribute the Offered Units in a manner which complies with and observes all Applicable Laws in each jurisdiction into and from which they may offer to sell Offered Units or distribute the Prospectus or any Prospectus Amendment in connection with the Distribution of the Offered Units and will not, directly or indirectly, offer, sell or deliver any Offered Units or deliver the Prospectus or any Prospectus Amendment to any person in any jurisdiction other than in the Canadian Selling Jurisdictions except in a manner which will not require the Corporation to comply with the registration, prospectus, filing or other similar requirements under the Applicable Laws relating to securities of such other jurisdictions.

- (c) For the purposes of this Section 3, the Agent shall be entitled to assume that the Offered Units are qualified for Distribution in any Canadian Selling Jurisdiction where a receipt for the Final Prospectus shall have been obtained from the Ontario Securities Commission, as principal regulator, the British Columbia Securities Commission and the Alberta Securities Commission pursuant to the Passport System following the filing of the Final Prospectus.
- (d) The Agent shall use all reasonable efforts to complete the Distribution of the Offered Units pursuant to the Prospectus as early as practicable and the Agent shall advise the Corporation in writing when, in the opinion of the Agent, the Agent has completed the Distribution of the Offered Units and within 25 days of the Closing Date provide a breakdown of the number of Offered Units distributed and proceeds received in each of the Canadian Selling Jurisdictions where such breakdown is required for the purpose of calculating fees payable to the Canadian Securities Regulators.
- (e) The Agent shall deliver a copy of the Prospectus and any Prospectus Amendment to each Purchaser.
- (f) The Agent represents and warrants to the Corporation and acknowledges that the Corporation is relying upon such representations and warranties in entering into this Agreement that:
  - (i) it is a valid and subsisting corporation, duly incorporated and in good standing under the laws of the jurisdiction in which it was incorporated;
  - (ii) it holds all licenses and permits that are required for carrying on its business in the manner in which such business has been carried on;
  - (iii) it has good and sufficient right and authority to enter into this Agreement and complete the transactions contemplated under this Agreement on the terms and conditions set forth herein;
  - (iv) all information reasonably requested by the Agent and its counsel in connection with the due diligence investigations of the Agent will be treated by the Agent and its counsel as confidential and will only be used in connection with the Offering; and
  - (v) it is an appropriately registered investment dealer under provincial securities laws, rules and regulations of the Canadian Selling Jurisdictions so as to permit it to lawfully fulfil its obligations hereunder.
- (g) The representations and warranties of the Agent contained in this Agreement shall be true at the Closing Time and they shall survive the completion of the transactions contemplated under this Agreement until the third anniversary of the Closing Date.

The Corporation understands and agrees that the Agent may arrange for Purchasers in jurisdictions other than Canada and the United States, on a private placement basis and provided that the purchase of such Offered Units does not contravene the Applicable Securities Laws of the jurisdiction where the Purchaser is resident and provided that such sale does not trigger: (i) any obligation to prepare and file a prospectus, registration statement or similar disclosure document; or (ii) any registration or other obligation on the part of the Corporation including, but not limited to, any continuing obligation in that jurisdiction.

# 4. Deliveries

- (a) The Corporation shall deliver, or cause to be delivered to the Agent, without charge:
  - (i) on the date hereof, a copy of the Preliminary Prospectus, the Amended and Restated Preliminary Prospectus, the Second Amended and Restated Preliminary Prospectus and the Final Prospectus, each signed and certified as required by Applicable Securities Laws;
  - contemporaneously with the filing of the Final Prospectus, a copy of any other document required to be filed or that is otherwise delivered by the Corporation in respect of the Offering under the laws of each of the Selling Jurisdictions in compliance with Applicable Securities Laws, to the extent not available on SEDAR;
  - the private placement memorandum incorporating the Prospectus prepared for use in connection with the sale of the Offered Units in the United States or to, or for the account or benefit of, U.S. Persons (the "U.S. Memorandum"), and, forthwith after preparation, any amendment to the U.S. Memorandum;
  - (iv) prior to the filing of the Final Prospectus, copies of correspondence indicating that the application for the listing and posting for trading on the TSX of the Unit Shares, the Warrant Shares and the Compensation Shares have been approved for listing subject only to satisfaction by the Corporation of the Standard Listing Conditions;
  - (v) contemporaneously with, or prior to, the filing of the Final Prospectus, a "long form" comfort letter dated the date of the Final Prospectus, in form and substance satisfactory to the Agent, addressed to the Agent from the Corporation's Auditors with respect to financial and accounting information relating to the Corporation contained in the Final Prospectus, which letter shall be based on a review by the Corporation's Auditors within a cut-off date of not more than two Business Days prior to the date of the letter, which letter shall be in addition to the Corporation's Auditors consent letter addressed to the Canadian Securities Regulators; and
  - (vi) prior to the filing of any Prospectus Amendment with the Securities Regulators, a copy of such Prospectus Amendment signed and certified as required by Applicable Securities Laws of the Canadian Selling Jurisdictions. Concurrently with the delivery of any Prospectus Amendment, the Corporation shall deliver to the Agent and the Agent's counsel, with respect to such Prospectus Amendment, opinions, comfort letters and such other documentation substantially equivalent or similar to those referred to in this Section 4, as appropriate or reasonably requested by the Agent in the circumstances.

- (b) Delivery of the Prospectus and any Prospectus Amendment shall constitute a representation and warranty by the Corporation to the Agent that, as at the date of the Prospectus or Prospectus Amendment, as the case may be: (i) all information and statements (except information and statements relating solely to the Agent and provided by the Agent in writing) contained in the Prospectus and any Prospectus Amendments are true and correct in all material respects and contain no misrepresentation and constitute full, true and plain disclosure of all material facts relating to the Corporation and the Offered Units; (ii) no material fact or information has been omitted from such disclosure (except facts or information relating solely to the Agent and provided by the Agent in writing) which is required to be stated in such disclosure or is necessary to make the statements or information contained in such disclosure not misleading in light of the circumstances under which they were made; (iii) such documents comply in all material respects with the requirements of the Applicable Securities Laws of the Canadian Selling Jurisdictions and have been filed (and a receipt therefor will be obtained, if required) in each of the Canadian Selling Jurisdictions; and (iv) except as set forth or contemplated in the Prospectus or any Prospectus Amendment, there has been no material change (actual, anticipated, contemplated, proposed or threatened) in the business, affairs, business prospects, operations, assets, liabilities (contingent or otherwise), capital or ownership of the Corporation since the end of the period covered by the Financial Statements. Such deliveries shall also constitute the Corporation's consent to the use by the Agent and any Selling Firm of the Prospectus and any Prospectus Amendment in connection with the Distribution of the Offered Units in the Selling Jurisdictions in compliance with this Agreement and Applicable Securities Laws.
- (c) The Corporation shall cause commercial copies of the Final Prospectus, any Prospectus Amendment and the U.S. Memorandum to be delivered to the Agent without charge, in such numbers and in such cities as the Agent may reasonably request. Such delivery shall be effected as soon as possible after obtaining the Final Receipt and, in any event, no later than 5:00 p.m. (Toronto time) on December 4, 2017 or such other date and time as may be agreed upon by the Agent and the Corporation. The Corporation shall similarly cause to be delivered commercial copies of any Prospectus Amendment.

### 5. Material Change During Distribution

- (a) During the Distribution of the Offered Units under the Prospectus, the Corporation shall promptly notify the Agent in writing of:
  - any material change (actual, anticipated, contemplated, proposed or threatened) in the business, affairs, business prospects, operations, assets, liabilities (contingent or otherwise), capital or ownership of the Corporation;
  - any material fact which has arisen or has been discovered and would have been required to have been stated in the Prospectus had the fact arisen or been discovered on, or prior to, the date of the Prospectus; and
  - (iii) any change in any material fact or matter covered by a statement contained in the Prospectus or any Prospectus Amendment (collectively, the "Offering Documents") which change is, or may be, of such a nature as to render any of the Offering Documents misleading or untrue or which would result in a misrepresentation in any of the Offering Documents or which would result in the Prospectus or any Prospectus Amendment not complying with the Applicable Securities Laws or other laws of any Canadian Selling Jurisdiction.

- (b) The Corporation will comply with Section 57 of the *Securities Act* (Ontario) and with the comparable provisions of other Applicable Securities Laws in the Canadian Selling Jurisdictions, and the Corporation will prepare and will file any Prospectus Amendment, which, in the opinion of the Agent and its counsel, acting reasonably, may be necessary to continue to qualify the Offered Units and Compensation Warrants for Distribution in each of the Canadian Selling Jurisdictions.
- (c) In addition to the provisions of subsections 5(a) and 5(b), the Corporation shall, in good faith, discuss with the Agent any fact or change in circumstances (actual, anticipated, contemplated, proposed or threatened, financial or otherwise) which is of such a nature that there is reasonable doubt whether written notice need be given under this section and shall consult with the Agent with respect to the form and content of any amendment or other Prospectus Amendment proposed to be filed by the Corporation, it being understood and agreed that no such amendment or other Prospectus Amendment shall be filed with any Securities Regulator prior to the review thereof by the Agent and its counsel, acting reasonably.

# 6. Covenants of the Corporation

The Corporation hereby covenants to the Agent that the Corporation:

- (a) shall advise the Agent, promptly after receiving notice thereof, of the time when the Final Prospectus and any Prospectus Amendment has been filed and receipts therefor have been obtained pursuant to the Passport System and will provide evidence reasonably satisfactory to the Agent of each such filing and copies of such receipts;
- (b) shall prior to the Closing Time, allow the Agent (and its counsel and consultants) to conduct all due diligence which the Agent may reasonably require or consider necessary or appropriate in order to fulfill the Agent's obligations as registrants to complete the Offering as provided herein. The Corporation will provide to the Agent (and its counsel and consultants) reasonable access to the Corporation's properties (if any), senior management personnel and corporate, financial and other records, for the purposes of conducting such due diligence. Without limiting the scope of the due diligence inquiry the Agent (or its counsel and consultants) may conduct, the Corporation shall also make available its directors, senior management and counsel to answer any questions which the Agent may have and to participate in one or more due diligence sessions to be held prior to Closing (collectively, the "Due Diligence Session"). The Agent shall distribute a list of written questions in advance of each Due Diligence Session;
- (c) shall forthwith advise the Agent of, and provide the Agent with copies of, any written communications relating to:
  - the issuance by any securities regulatory authority, including the TSX, of any order suspending or preventing the use of the Prospectus or any Prospectus Amendment or any cease trading or stop order or any halt in trading relating to the Common Shares or the institution or threat of any proceedings for that purpose; and

- the receipt of any material communication from any securities regulatory authority, including the TSX, or other authority relating to the Prospectus or any Prospectus Amendment or the Offering;
- (d) shall use its commercially reasonable best efforts to prevent the issuance of any order referred to in (c)(i) above and, if issued, shall forthwith take all reasonable steps which it is able to take and which may be necessary or desirable in order to obtain the withdrawal thereof as soon as is reasonably practicable;
- (e) shall use its commercially reasonable best efforts to maintain its status as a "reporting issuer" (or the equivalent thereof) not in default of the requirements of the Applicable Securities Laws of each of the Canadian Selling Jurisdictions for as long as any Warrants remain outstanding, other than in a business combination or similar transaction where all the outstanding securities of the Corporation have been exchanged for cash or the securities of another issuer which is a reporting issuer under any Applicable Securities Laws;
- (f) shall use its commercially reasonable best efforts to maintain the listing of the Common Shares on the TSX and the OTCQB or such other recognized stock exchange or quotation system as the Agent may approve, acting reasonably, for as long as any Warrants remain outstanding, other than in a business combination or similar transaction where all the outstanding securities of the Corporation have been exchanged for cash or the securities of another issuer which is a reporting issuer under any Applicable Securities Laws;
- (g) shall use its commercially reasonable efforts to ensure that the Unit Shares, the Warrant Shares and the Compensation Shares will be conditionally approved for listing on the TSX upon their issue;
- (h) shall use the net proceeds of the Offering in the manner and subject to the qualifications described in the Prospectus under the heading "Use of Proceeds"; and
- (i) shall, as soon as practicable, use its commercially reasonable efforts to receive all necessary consents to the transactions contemplated herein.

# 7. Representations and Warranties of the Corporation

The Corporation hereby represents and warrants to the Agent that as at the date hereof:

- (a) the Corporation has been duly incorporated, continued or amalgamated and is validly existing under the laws of its governing jurisdiction, has all requisite power and authority and is duly qualified to carry on its business as now conducted and to own or lease its properties and assets and the Corporation has all requisite corporate power and authority to carry out its obligations under this Agreement, the Warrant Indenture (upon execution and delivery thereof), the Compensation Warrant Certificates (upon execution and delivery thereof) and any other document, filing, instrument or agreement delivered in connection with the Offering, and to carry out its obligations hereunder;
- (b) no agreement is in force or effect which in any manner affects the voting or control of any of the securities of the Corporation to which the Corporation is a party or of which the Corporation has knowledge;

- (c) the Corporation does not beneficially own, or exercise control or direction over, 10% or more of the outstanding voting shares of any company;
- (d) all consents, approvals, permits, authorizations or filings as may be required under Applicable Securities Laws necessary for the execution and delivery of this Agreement and the sale of the Offered Units, and the consummation of the transactions contemplated hereby, have been made or obtained or will be obtained prior to the Initial Closing Date, as applicable, subject only to the Standard Listing Conditions and any post-Closing notice filings required under applicable United States federal or state securities laws;
- (e) upon the execution and delivery thereof, each of this Agreement, the Warrant Indenture and the Compensation Warrant Certificates shall constitute a valid and binding obligation of the Corporation and each shall be enforceable against the Corporation in accordance with its terms, except as enforcement thereof may be limited by bankruptcy, insolvency, reorganization, moratorium and other laws relating to or affecting the rights of creditors generally and except as limited by the application of equitable principles when equitable remedies are sought, and by the fact that rights to indemnity, contribution and waiver, and the ability to sever unenforceable terms, may be limited by Applicable Law;
- (f) the currently issued and outstanding Common Shares are listed and posted for trading on the TSX and on the OTCQB and no order ceasing or suspending trading in the Common Shares or prohibiting the trading of any of the Common Shares has been issued and no proceedings for such purpose are pending or, to the knowledge of the Corporation, threatened;
- (g) the definitive form of certificate representing the Common Shares complies with the requirements of the *Business Corporations Act* (Ontario), complies with the requirements of the TSX Manual and does not conflict with the constating documents of the Corporation;
- (h) the Financial Statements:
  - have been prepared in accordance with international financial reporting standards in Canada consistently applied throughout the period referred to therein;
  - contain no misrepresentation and present fairly, in all material respects, the financial position (including the assets and liabilities, whether absolute, contingent or otherwise) of the Corporation as at such dates and results of operations of the Corporation for the periods then ended; and
  - (iii) contain and reflect adequate provision or allowance for all reasonably anticipated liabilities, expenses and losses of the Corporation,

and there has been no change in accounting policies or practices of the Corporation since December 31, 2015;

 the Corporation has not declared or paid any dividends or declared or made any other payments or distributions on or in respect of any of the Common Shares and has not, directly or indirectly, redeemed, purchased or otherwise acquired any of its securities or agreed to do so or otherwise effected any return of capital with respect to such securities;

- (j) all taxes (including income tax, capital tax, payroll taxes, employer health tax, workers' compensation payments, property taxes, custom and land transfer taxes), duties, royalties, levies, imposts, assessments, deductions, charges or withholdings and all liabilities with respect thereto including any penalty and interest payable with respect thereto (collectively, "Taxes") due and payable by the Corporation have been paid except where the failure to pay such taxes would not have a Material Adverse Effect. All tax returns, declarations, remittances and filings required to be filed by the Corporation have been filed with all appropriate governmental authorities and all such returns, declarations, remittances and filings are complete and accurate and no material fact or facts have been omitted therefrom which would make any of them misleading except where such failure would not have a Material Adverse Effect. The Corporation has not received any written notice regarding examination of any tax return of the Corporation currently in progress and the Corporation has no knowledge of any facts that could give rise to any such examination and there are no issues or disputes outstanding with any governmental authority respecting any Taxes that have been paid, or may be payable, by the Corporation except where such examinations would not have a Material Adverse Effect;
- (k) the Scientific Research and Experimental Development ("SR&ED") credits receivable as described in the Offering Documents and any other SR&ED credits otherwise applied for by the Corporation are based on underlying work, expenses and claims of the Corporation giving rise to such SR&ED credits which satisfy the requirements of the *Income Tax Act*(Canada) in order for the Corporation to claim or have claimed such SR&ED credits, and to the knowledge of the Corporation there are no facts, circumstances or basis upon which the applicable taxing authority could reject, disallow, adversely reassess or deny the Corporation any such SR&ED credits, except as otherwise disclosed to the Agent in writing;
- (l) the Corporation's Auditors, which are the auditors who audited the Audited Financial Statements and who provided their audit report thereon, are independent public accountants under Applicable Securities Laws of the Canadian Selling Jurisdictions and there has never been a "reportable disagreement" (within the meaning of NI 51-102) between the Corporation and the Corporation's Auditors;
- (m) the Corporation maintains a system of internal accounting controls sufficient to provide reasonable assurance that:
  - (i) transactions are executed in accordance with management's general or specific authorization;
  - transactions are recorded as necessary to permit preparation of financial statements in conformity with international financial reporting standards and to maintain accountability for assets;
  - (iii) access to assets is permitted only in accordance with management's general or specific authorization; and
  - (iv) the recorded accountability for assets is compared with existing assets at reasonable intervals and appropriate action is taken with respect to any differences;

- (n) the Corporation is in compliance with the certification requirements contained in National Instrument 52-109 *Certification of Disclosure in Issuers' Annual and Interim Filings* of the Canadian Securities Administrators with respect to the Corporation's annual and interim filings with Canadian Securities Regulators;
- (o) the audit committee of the Corporation is comprised and operates in accordance with the requirements of National Instrument 52-110 *Audit Committees* of the Canadian Securities Administrators;
- (p) except for the Warrants, the Compensation Warrants and as set forth in Schedule "A" to this Agreement, no holder of outstanding securities of the Corporation will be entitled to any pre-emptive or any similar rights to subscribe for any of the Common Shares or other securities of the Corporation, and no rights, warrants or options to acquire, or instruments convertible into or exchangeable for, any shares in the capital of the Corporation are outstanding;
- (q) all information which has been prepared by the Corporation relating to the Corporation and its business, properties and liabilities that is or has been publicly disclosed or otherwise provided to the Agent or its counsel, including any investor or corporate presentations posted on the Corporation's website, and all financial, marketing, sales and operational information, is, as of the date of such information, true and correct in all material respects, contains no misrepresentation and no fact or facts have been omitted therefrom which would make such information misleading;
- (r) except as properly disclosed in the Offering Documents, the Corporation has not approved, has not entered into any agreement in respect of, and to the knowledge of the Corporation there are no facts or circumstances in respect of:
  - the purchase of any material property or assets or any interest therein or the sale, transfer or other disposition of any material property or assets or any interest therein currently owned, directly or indirectly, by the Corporation whether by asset sale, transfer of shares or otherwise;
  - (ii) the issuance of any securities of the Corporation or a right of first refusal with respect to the issuance by the Corporation of any securities;
  - any change in control of the Corporation (whether by sale, transfer or other disposition of shares or sale, transfer, lease or other disposition of all or substantially all of the property and assets of the Corporation);
  - (iv) a proposed or planned disposition of shares by any shareholder who owns, directly or indirectly, 10% or more of the outstanding shares of the Corporation; or
  - (v) an agreement in force or having the effect of which in any manner affects or will affect the voting or control of any of the securities of the Corporation;
- (s) no legal or governmental proceedings are pending to which the Corporation is a party or to which its property is subject that would result individually or in the aggregate in a Material Adverse Effect and, to the knowledge of the Corporation, no such proceedings have been threatened against, or are contemplated with respect to, the Corporation or its properties;

- (t) the Corporation is the legal and beneficial owner, free of all mortgages, liens, charges, pledges, security interests, encumbrances, claims or demands whatsoever, of the interests in personal property referred to as owned by it in the Prospectus, and all material agreements under which the Corporation holds an interest in personal property are in good standing according to their terms;
- (u) the minute books and records of the Corporation made available to counsel for the Agent in connection with its due diligence investigations of the Corporation are all of the minute books and records of the Corporation and contain copies of all material proceedings of the shareholders, the board of directors and all committees of the board of directors of the Corporation to the date of review of such corporate records and minute books, and there have been no other meetings, resolutions or proceedings of the shareholders, board of directors or any committees of the board of directors of the Corporation not reflected in such minute books and other records;
- (v) the Corporation is, and will be at the Closing Time, an Eligible Issuer and a reporting issuer under Applicable Securities Laws in the Canadian Selling Jurisdictions, and the Corporation is not in default in any material respect of any requirement of Applicable Securities Laws and the Corporation is not included in a list of defaulting reporting issuers maintained by the applicable Securities Regulators. In particular, without limiting the foregoing, the Corporation is in compliance at the date hereof with its obligations to make timely disclosure of all material changes relating to it and, since January 1, 2015, no such disclosure has been made on a confidential basis and there is no material change relating to the Corporation which has occurred and with respect to which the requisite material change statement has not been filed, except to the extent that the Offering and the transactions contemplated thereunder may constitute a material change;
- (w) on November 14, 2017, the Corporation filed the Preliminary Prospectus in each of the Canadian Selling Jurisdictions and obtained, pursuant to the Passport System, a receipt or deemed receipt dated November 14, 2017 from the Ontario Securities Commission, as principal regulator, the British Columbia Securities Commission and the Alberta Securities Commission, for the Preliminary Prospectus;
- (x) on November 16, 2017, the Corporation filed the Amended and Restated Preliminary Prospectus in each of the Canadian Selling Jurisdictions and obtained, pursuant to the Passport System, a receipt or deemed receipt dated November 17, 2017 from the Ontario Securities Commission, as principal regulator, the British Columbia Securities Commission and the Alberta Securities Commission, for the Amended and Restated Preliminary Prospectus;
- (y) on November 22, 2017, the Corporation filed the Second Amended and Restated Preliminary Prospectus in each of the Canadian Selling Jurisdictions and obtained, pursuant to the Passport System, a receipt or deemed receipt dated November 22, 2017 from the Ontario Securities Commission, as principal regulator, the British Columbia Securities Commission and the Alberta Securities Commission, for the Second Amended and Restated Preliminary Prospectus;

- (z) the execution and delivery of each of this Agreement, the Warrant Indenture and the Compensation Warrant Certificates and the compliance with all provisions contemplated thereunder, the Offering and sale of the Offered Units and the issuance of the Offered Units and the Compensation Warrants does not and will not:
  - require the consent, approval, authorization, registration or qualification of or with any governmental authority, stock exchange, securities regulatory authority or other third party (in each case in the Selling Jurisdictions), except: (A) such as have been obtained; or (B) such as may be required and will be obtained by the Closing Time;
  - result in a breach of, or default under, nor create a state of facts which, after notice or lapse of time or both, would result in a breach of or default under, nor conflict with:
    - (A) any of the terms, conditions or provisions of the constating documents or resolutions of the shareholders, board of directors or any committee of the board of directors of the Corporation;
    - (B) any Applicable Law applicable to the Corporation, including the Applicable Securities Laws, or any judgment, order or decree of any governmental body, agency or court having jurisdiction over the Corporation; or
    - (C) any Material Agreement; or
  - give rise to any lien, charge or claim in or with respect to the properties or assets now owned or hereafter acquired by the Corporation or the acceleration of or the maturity of any debt under any indenture, mortgage, lease, agreement or instrument binding or affecting the Corporation or any of its properties;
- (aa) the authorized capital of the Corporation consists of an unlimited number of Common Shares of which, as of the close of business on November 29, 2017, 334,226,684 Common Shares are issued and outstanding as fully paid and non-assessable;
- (bb) other than as contemplated hereby, there is no person acting or purporting to act at the request or on behalf of the Corporation that is entitled to any brokerage or finder's fee in connection with the Offering;
- (cc) all material disclosure filings required to be made by the Corporation pursuant to Applicable Securities Laws from January 1, 2015 have been made and such disclosure and filings contained no material misrepresentation as at the respective dates thereof;
- (dd) all forward-looking information and statements of the Corporation contained in the Prospectus and the assumptions underlying such information and statements, subject to any qualifications contained therein, including any forecasts and estimates, expressions of opinion, intention and expectation, as at the time they were or will be made, were or will be made or based on assumptions that are reasonable;
- (ee) the statistical, industry and market related data included in the Prospectus are derived from sources which the Corporation reasonably believes to be accurate, reasonable and reliable, and such data agrees in all material respects with the sources from which it was derived;

- (ff) the Corporation has no knowledge of any legislation, or proposed legislation (published by a legislative body), which it anticipates will materially and adversely affect the business, affairs, operations, assets, liabilities (contingent or otherwise) or prospects of the Corporation;
- (gg) the Corporation is in material compliance with all Applicable Laws respecting employment and employment practices, terms and conditions of employment, pay equity and wages, except where non-compliance with such laws could not reasonably be expected to have a Material Adverse Effect, and has not and is not engaged in any unfair labour practice;
- (hh) except as properly disclosed in the Offering Documents, there has not been and there is not currently any labour disruption or conflict which could reasonably be expected to have a Material Adverse Effect;
- the Corporation does not have any loans or other indebtedness outstanding which have been made to any of its officers, directors or employees, past or present, any known holder of more than 10% of any class of shares of the Corporation, or any person not dealing at arm's length with the Corporation that are currently outstanding;
- (jj) except as disclosed in the Disclosure Record, none of the directors, officers or employees of the Corporation, any known holder of more than 10% of any class of shares of the Corporation, or any associate or affiliate of any of the foregoing persons, had or has any material interest, direct or indirect, in any transaction or any proposed transaction that was or is material to the Corporation;
- (kk) the Corporation maintains insurance covering the properties, operations, personnel and businesses of the Corporation as the Corporation reasonably deems adequate; such insurance insures against such losses and risks to an extent which is adequate in the reasonable opinion of management of the Corporation to protect the Corporation and the business of the Corporation; all such insurance is fully in force on the date hereof and will be fully in force on the Closing Date; and the Corporation has no reason to believe that it will not be able to renew any such insurance as and when such insurance expires;
- (II) the Corporation (i) is in compliance with any and all Applicable Laws relating to the protection of human health and safety, the environment or hazardous or toxic substances or wastes, pollutants or contaminants ("Environmental Laws"), (ii) has received all permits, licenses or other approvals required under applicable Environmental Laws to conduct its business, (iii) is in compliance with all terms and conditions of any such permit, license or approval, (iv) to the knowledge of the Corporation, there have been no past, and there are no pending or threatened claims, compliants, notices or requests for information received by the Corporation with respect to any alleged material violation of any Environmental Law, and (v) to the knowledge of the Corporation, no conditions exist at, on or under which, with the passage of time, or the giving of notice or both, would give rise to liability under any Environmental Law; except where such non-compliance, failure to receive a permit, licence or other approval, claim or condition would not, singly or in the aggregate, have or would be expected to have a Material Adverse Effect on the Corporation;

- (mm) no order, ruling or determination having the effect of suspending the sale or ceasing the trading in any securities of the Corporation has been issued by any securities regulatory authority and is continuing in effect and no proceedings for that purpose have been instituted or, to the knowledge of the Corporation, are pending, contemplated or threatened by any securities regulatory authority;
- (nn) the Corporation has not made any loans to, or guaranteed the obligations of, any person;
- (oo) with respect to each of the premises of the Corporation which is material to the Corporation and which the Corporation occupies as tenant (the "Leased Premises"), the Corporation has the right to occupy and use such Leased Premises, and each of the leases pursuant to which the Corporation occupies the Leased Premises are in good standing and in full force and effect, and neither the Corporation nor any other party thereto is in breach of any material covenants, conditions or obligations contained therein;
- (pp) there have not been and there are not currently any material disagreements with any of the employees of the Corporation which are adversely affecting the carrying on of the business of the Corporation;
- (qq) there is no action, suit, proceeding, inquiry or investigation before or brought by any court or governmental agency or body, domestic or foreign, including, for the avoidance of doubt, any Regulatory Authority, now pending or threatened against or affecting the Corporation, which would cause a Material Adverse Effect;
- (rr) the Transfer Agent at its principal offices in the City of Toronto has been duly appointed as registrar and transfer agent for the Common Shares;
- (ss) neither the Corporation, nor to the knowledge of the Corporation, any director, officer, agent, employee or other person associated with or acting on behalf of the Corporation has: (i) used any corporate funds for any unlawful contribution, gift, entertainment or other unlawful expense relating to political activity; (ii) made any direct or indirect unlawful payment to any foreign or domestic government official or employee from corporate funds; (iii) violated any applicable anti-bribery, export control and economic sanctions laws including any provision of the *Corruption of Foreign Officials Act*

(Canada) or the United States Foreign Corrupt Practice Act; or (iv) made any bribe, rebate, payoff, influence payment, kickback or other unlawful payment;

(tt) the Corporation holds all of the permits, licenses and like authorizations necessary for it to carry on its business in each jurisdiction where such business is carried on that are material to the conduct of the business of the Corporation (as such business is currently conducted), including, but not limited to, permits, licenses and like authorizations from Regulatory Authorities (collectively, the "Material Permits"); all such Material Permits which are so required are valid and subsisting and in good standing and none of the same contains any term, provision, condition or limitation which has or would reasonably be expected to affect or restrict in a materially adverse manner the operation of the business of the Corporation, as now carried on or proposed to be carried on, as set out in the Prospectus, and the Corporation is not in breach thereof or in default with respect to filings to be effected or conditions to be fulfilled in order to maintain such Material Permits in good standing;

- (uu) the Corporation is and at all times has been in material compliance with each Material Permit held by it and is not in violation of, or in default under, any such Material Permit in any material respect, except in any case where the Corporation has received a valid and effective waiver of such violation or default;
- (vv) all clinical studies, tests and trials being conducted by or on behalf of the Corporation that have been or will be submitted to any governmental entity, including any Regulatory Authority, including in Canada and the European Union, in connection with any Material Permits, are being or have been conducted by the Corporation or, to the knowledge of the Corporation, are being or have been conducted on behalf of the Corporation, in compliance in all material respects with applicable experimental protocols, procedures and controls pursuant to generally accepted professional scientific standards and applicable local, provincial, state, federal and foreign legal requirements, rules and regulations (including Applicable Laws administered by the Regulatory Authorities);
- (ww) the results of the clinical studies, tests and trials being conducted by or on behalf of the Corporation described in the Prospectus are accurate and complete in all material respects and, to the knowledge of the Corporation, there are no other trials, studies or tests, the results of which could reasonably call into question the results described or referred to in the Prospectus; and the Corporation has not received any notices or other correspondence from such Regulatory Authorities or any other governmental agency or any other person requiring the termination, suspension or material modification of any research, pre-clinical and clinical validation studies or other studies and tests that are described in the Prospectus or the results of which are referred to therein;
- (xx) except (i) with respect to Intellectual Property to which ownership is not statutorily protected, (ii) reversionary and moral rights, and (iii) for the Intellectual Property identified in Schedule "C", the Corporation is the sole legal and beneficial owner of, has good and marketable title to, and owns all right, title and interest in and to all Corporation IP free and clear of all encumbrances, charges, covenants, conditions, options to purchase and restrictions or other adverse claims or interest of any kind or nature, and the Corporation has no knowledge of any claim of adverse ownership in respect thereof;
- (yy) Schedule "B" to this Agreement contains, among other things, a true and complete list of all active (including reinstatable) applied for and registered Patents and Trademarks owned by the Corporation;
- (zz) to the Corporation's knowledge, there is no Intellectual Property, other than the Intellectual Property which the Corporation owns and licenses, that is required to permit the Corporation to substantially carry on its present business as described in the Prospectus, and the Corporation has no knowledge of any Intellectual Property owned by another person that is required to permit the Corporation to substantially carry on its business as described in the Prospectus and to which the Corporation knows it cannot obtain a license;
- (aaa) the licenses identified at Schedule "C" do not materially impede, restrict or prevent the conduct of the business of the Corporation as described in the Prospectus;

- (bbb) the Corporation has not received any notice or claim (whether written, oral or otherwise) challenging the Corporation's ownership or right to use any of the Corporation IP or suggesting that any other person has any claim of legal or beneficial ownership or other claim or interest with respect thereto, nor, to the knowledge of the Corporation, is there a reasonable basis for any claim that any person other than the Corporation has any claim of legal or beneficial ownership or other claim or interest in any of the Corporation IP, except for the Intellectual Property identified in Schedule "C";
- (ccc) all active Applied for Corporation IP and active Registered Corporation IP is, to the knowledge of the Corporation, in good standing, is recorded in the name of the Corporation and has been filed in a timely manner in the appropriate offices to preserve the rights thereto (if any) and, in the case of a provisional application, the Corporation confirms that all right, title and interest in and to the potential invention(s) disclosed in such application have been or as of the Closing Date will be assigned in writing (without any express right to revoke such assignment) to the Corporation. To the knowledge of the Corporation, there has been no public disclosure, sale or offer for sale by the Corporation of any invention described in each of the Corporation IP anywhere in the world that would prevent the valid issue of a registration from that Corporation IP in the corresponding jurisdiction;
- (ddd) all material prior art or other information known to the Corporation relating to the Corporation IP has been disclosed to the appropriate offices if and to the extent such disclosure is required to comply with the Applicable IP Laws in the jurisdictions where the corresponding applications are pending;
- (eee) to the knowledge of the Corporation, all active Registered Corporation IP has been filed, prosecuted and obtained in accordance with the corresponding Applicable IP Laws and is currently in effect and in compliance with such Applicable IP Laws;
- (fff) to the knowledge of the Corporation, and except for (i) provisional patent applications which were filed more than one year ago, and (ii) any inactive Intellectual Property identified in Schedule "B", no Applied for Corporation IP or Registered Corporation IP has expired, become abandoned, been cancelled or expunged, or has lapsed for failure to be renewed or maintained;
- (ggg) to the knowledge of the Corporation, the conduct of the business of the Corporation (including the use or other exploitation of the Corporation IP by the Corporation or other licensees) has not infringed, violated or misappropriated any Intellectual Property right of any person;
- (hhh) the Corporation is not a party to any legal action or legal proceeding, nor has the Corporation received notice of any legal action or legal proceeding being threatened, that alleges that any current or proposed conduct of the Corporation's business (including the use or other exploitation of any Corporation IP by the Corporation or any customers, distributors or other licensees) has or will infringe, violate or misappropriate any Intellectual Property right of any person;
- (iii) to the knowledge of the Corporation, no person has infringed upon, misappropriated, illegally exported, or violated any of the Corporation's rights in the Corporation IP;

- (jjj) the Corporation has entered into agreements pursuant to which the Corporation has been granted licenses or permissions to one or more of make, use, reproduce, sub license, manufacture, sell, modify, update, enhance or otherwise exploit the Licensed IP to the extent required to operate the business of the Corporation currently conducted (including, if required, the right to incorporate such Licensed IP into the Corporation's products) as described in the Prospectus. To the knowledge of the Corporation, any Licensed IP that was terminated in the past 6 months is not material to the business of the Corporation;
- (kkk) to the extent that any of the non-publicly disclosed Corporation IP is disclosed to any person or any person has access to such Corporation IP (including any employee, officer, shareholder or consultant of the Corporation), the Corporation has entered into an agreement which contains customary terms and conditions with respect to the use and disclosure of such Corporation IP. In each case in accordance with their respective terms, neither the Corporation nor, to the knowledge of the Corporation, any other person is in default of its obligations thereunder with respect to the terms and conditions relating to use and disclosure of Corporation IP;
- (III) the Corporation has taken all actions that it is contractually obligated to take and all actions that are customary and reasonable to protect the confidentiality of the Corporation IP that it treats as confidential;
- (mmm) to the knowledge of the Corporation, it is not, and will not be, necessary for the Corporation to utilize any Intellectual Property owned by or in possession of any of its employees that was made prior to their employment with the Corporation in a manner that is in violation of the rights of such employee or the rights of his or her prior employers;
- (nnn) the Corporation has not received any opinion from its legal counsel that any of the active Registered Corporation IP or Applied for Corporation IP is clearly, but not as a result of any prior art, invalid, unregistrable, or unenforceable in the case of Registered Corporation IP;
- (000) the Corporation has not received any grant relating to research and development which is subject to repayment in whole or in part or to conversion to debt upon sale of any Common Shares or which may affect the right of ownership of the Corporation in the Corporation IP;
- (ppp) the Corporation requires each of its employees and consultants to execute a non- disclosure agreement containing customary terms and conditions for agreements of this nature, and all current employees and consultants of the Corporation have executed such agreement and, to the knowledge of the Corporation, all past employees and consultants of the Corporation have executed such agreement;
- (qqq) all of the present and past employees of the Corporation, and all of the present and past consultants, contractors and agents of the Corporation performing services relating to the conception, discovery, making or development of the Corporation IP, have entered into a written agreement assigning or requiring assignment to the Corporation of, or confirming that the Corporation owns all right, title and interest in and to all such Intellectual Property and, with respect to any Corporation IP in which moral rights subsist, waiving all moral rights in such Intellectual Property in favour of the Corporation;

- (rrr) any and all fees or payments required to keep the Registered Corporation IP and, to the knowledge of the Corporation, the registered Licensed IP active have been paid, except those which the Corporation has decided to let lapse;
- (sss) there are no ongoing Intellectual Property disputes, settlement negotiations, settlement agreements or communications relating to the foregoing between the Corporation and any other persons relating to or potentially relating to the business of the Corporation which have not been resolved;
- (ttt) the Corporation has conducted and is conducting its business in compliance in all material respects with all Applicable Laws of each jurisdiction in which it carries on business and has not received a notice of non-compliance, nor knows of, nor has reasonable grounds to know of, any facts that could give rise to a notice of non- compliance with any such Applicable Laws which would have a Material Adverse Effect;
- (uuu) except pursuant to the licenses identified in Schedule "C", the Corporation has no knowledge of any reason why it would not be entitled to make use of or commercially exploit the Corporation IP. With respect to any license that is material to its business by which the Corporation has obtained the rights to exploit, in any way, the Licensed IP rights or by which the Corporation has granted to any third party the right to so exploit such Licensed IP:
  - such license is in operation and enforceable in accordance with its terms, except to the extent that enforceability may be limited by: (A) applicable bankruptcy, insolvency, reorganization, moratorium, and other laws of general application affecting enforcement of creditors' rights generally; or (B) laws relating to the availability of specific performance, injunctive relief, or other equitable remedies, and no event of default has occurred and is continuing under any such license or agreement;
  - (ii) (A) the Corporation has not received any notice of termination or cancellation under such license, and no party thereto has any right of termination or cancellation thereunder except in accordance with its terms; (B) the Corporation has not received any notice of a breach or default under such license which breach or default has not been cured; and (C) the Corporation has not granted to any other person any rights contrary to, or in conflict with, the terms and conditions of such license;
  - the Corporation has no knowledge of any other party to such license or agreement that is in breach or default thereof, and has no knowledge of any event that has occurred that, with notice or lapse of time would constitute such a breach or default or permit termination, modification or acceleration under such license or agreement;
- (vvv) none of the Corporation nor any of its predecessors has had the registration of a class of securities under the U.S. Exchange Act revoked by the United States Securities Exchange Commission pursuant to Section 12(j) of the U.S. Exchange Act and any rules or regulations promulgated thereunder;
- (www) the operations of the Corporation are and have been conducted at all times in compliance with, in each case to the extent applicable, the financial recordkeeping and reporting requirements of the *United States Currency and Foreign Transactions Reporting Act of 1970*, the *Proceeds of Crime (Money Laundering)* and *Terrorist Financing Act (Canada)*, the anti-money laundering statutes of all jurisdictions, the rules and regulations thereunder and any related or similar rules, regulations or guidelines, issued, administered or enforced by any governmental agency (collectively, the "Anti-Money Laundering Laws"), and no action, suit or proceeding by or before any court or governmental agency, authority or body or any arbitrator involving the Corporation with respect to the Anti-Money Laundering Laws is pending or, to the knowledge of the Corporation, threatened; and

(xxx) neither the Corporation, nor, to the knowledge of the Corporation, any director, officer, agent, employee or affiliate of the Corporation is currently subject to any U.S. sanctions administered by the Office of Foreign Assets Control of the U.S. Treasury Department ("OFAC") and the Corporation will not directly or indirectly use the proceeds of the Offering, or lend, contribute or otherwise make available such proceeds to any subsidiary, joint venture partner or other person or entity, for the purpose of financing the activities of any person currently subject to any U.S. sanctions administered by OFAC.

# 8. Closing

The purchase and sale of the Offered Units shall be completed at the Closing Time at the offices of counsel to the Corporation, Borden Ladner Gervais LLP, Toronto, Ontario, or at such other place or places as the Agent and the Corporation may agree. At the Closing Time, the Corporation shall: (a) deliver to the Agent certificates in definitive form and/or book-entry only securities in accordance with the "non-certificated inventory" rules and procedures of CDS representing the Offered Units registered in the name of CDS & Co. or in such other name or names as shall be designated by the Agent; and (b) with respect to Purchasers in the United States that are Institutional Accredited Investors, deliver to the Agent physical certificates representing the Unit Shares and Warrants registered as the agent may direct the Corporation in writing, against payment by the Agent to the Corporation will be net of the Agency Fee and net of amounts payable to the Agent's legal counsel, Baker & McKenzie LLP, and out-of-pocket expenses of the Agent incurred in connection with the Offering (which expenses shall be borne by the Corporation), as more fully set out in Section 13. In addition, the Corporation shall, at the Closing Time, issue to the Agent the Compensation Warrant Certificates.

If the aggregate gross proceeds to the Corporation from the Initial Closing is equal to or greater than the Minimum Offering, the Corporation and the Agent may agree from time to time to hold additional Closings on or prior to 30 days following the date of issuance of the Final Receipt to issue additional Offered Units until such time as the aggregate gross proceeds to the Corporation is equal to the Maximum Offering. Any such additional closing shall be referred to as a "**Subsequent Closing**" and shall be conducted in the same manner as the Initial Closing. At any Subsequent Closing, the Corporation and the Agent shall make all necessary payments and the Corporation shall, at its sole expense, deliver all of the certificates, opinions and other documents to be delivered by it on the Initial Closing Date, each updated to the date of any such Subsequent Closing.

### 9. Closing Conditions

The Agent's obligation to complete the Closing at the Closing Time shall be subject to the accuracy of the representations and warranties of the Corporation contained in this Agreement and in certificates required to be delivered by the Corporation hereunder as of the date of this Agreement and as of the Closing Date, the performance by the Corporation of its obligations under this Agreement and the following conditions:

- (a) the Agent shall have received an opinion, dated the Closing Date, of the Corporation's Canadian counsel, Borden Ladner Gervais LLP, and any other local counsel, in form and substance satisfactory to the Agent, acting reasonably (it being understood that such counsel may rely to the extent appropriate in the circumstance: (i) as to matters of fact, on certificates of the Corporation executed on its behalf by a senior officer of the Corporation and on certificates of the Transfer Agent, as to the issued capital of the Corporation; and (ii) as to matters of fact not independently established, on certificates of public officials) with respect to the following matters (with such opinions being subject to usual and customary assumptions and qualifications, including the qualifications set out below):
  - as to the incorporation and subsistence of the Corporation under the laws of the Province of Ontario and as to the corporate power of the Corporation to carry out its obligations under this Agreement and to issue the securities as contemplated by this Agreement;
  - (ii) as to the authorized and issued capital of the Corporation;
  - that the Corporation has all requisite corporate power and authority under the laws of its jurisdiction of incorporation to carry on its business and to own or lease its properties and assets as described in the Prospectus;
  - (iv) that none of the execution and delivery of this Agreement, the Warrant Indenture and the Compensation Warrant Certificates and the performance by the Corporation of its obligations hereunder, or the sale or issuance of the Unit Shares, the Warrants, the Warrant Shares, the Compensation Warrants and the Compensation Shares will conflict with or result in any breach of the articles or by-laws of the Corporation;
  - (v) that each of this Agreement, the Warrant Indenture and the Compensation Warrant Certificates has been duly authorized and executed and delivered by the Corporation, and constitutes a valid and legally binding obligation of the Corporation enforceable against it in accordance with its terms, except as enforcement thereof may be limited by bankruptcy, insolvency, liquidation, reorganization, moratorium or similar laws affecting the rights of creditors generally and except as limited by the application of equitable principles when equitable remedies are sought, and the qualification that the enforceability of rights of indemnity and contribution may be limited by Applicable Law;
  - (vi) all necessary corporate action has been taken by the Corporation to authorize the execution and delivery of the Prospectus and any Prospectus Amendment and the filing of such documents as are required under Applicable Securities Laws in each of the Canadian Selling Jurisdictions;
  - (vii) no consent, approval, authorization or order of or filing, registration or qualification with any court, governmental agency or body or securities regulatory authority having jurisdiction is required at this time for the execution and delivery by the Corporation of this Agreement, the Warrant Indenture or the Compensation Warrant Certificates and the performance of its obligations hereunder and thereunder, except for such as have been made or obtained;

- (viii) that the Unit Shares have been validly issued as fully paid and non-assessable securities in the capital of the Corporation;
- (ix) that the Warrants and Compensation Warrants have been duly and validly created and issued;
- that the Warrant Shares have been authorized and allotted for issuance and, upon the issuance of the Warrant Shares following due exercise of the Warrants in accordance with the terms thereof, the Warrant Shares will be validly issued as fully paid and non-assessable securities in the capital of the Corporation;
- (xi) that the Compensation Shares have been authorized and allotted for issuance and, upon the issuance of the Compensation Shares following due exercise of the Compensation Warrants in accordance with the terms thereof, the Compensation Shares will be validly issued as fully paid and nonassessable securities in the capital of the Corporation;
- (xii) all approvals, permits, consents, orders and authorizations have been obtained, all necessary documents have been filed and all other legal requirements have been fulfilled under Applicable Securities Laws of the Canadian Selling Jurisdictions to qualify the issuance or Distribution and sale of the Offered Units to the public in each of the Canadian Selling Jurisdictions and the Compensation Warrants to the Agent and to permit the issuance, sale and delivery of the Offered Units to the public through dealers registered under the Applicable Laws of each of the Canadian Selling Jurisdictions who have complied with the relevant provisions of such laws and the terms of their registration;
- subject to the qualifications, assumptions, limitations and understandings set out therein, the statements set out in the Prospectus, under the heading "Eligibility for Investment" are true and correct as at the date of the Prospectus;
- (xiv) that the attributes of the Common Shares conform in all material respects with the description thereof contained in the Prospectus;
- (xv) that the Offering has been conditionally accepted by the TSX; and
- (xvi) as to such other matters as the Agent's legal counsel may reasonably request prior to the Closing Time;
- (b) if any sales of Offered Units have been effected in the United States or to, or for the account or benefit of, U.S. Persons, the Agent shall have received a legal opinion addressed to the Agent from United States local counsel, dated as of the Closing Date, in form and substance satisfactory to the Agent, acting reasonably, to the effect that, subject to customary assumptions, the offer and sale of the Offered Units in accordance with Schedule "D" are not required to be registered under the U.S. Securities Act;

- the Agent shall have received the Unit Shares, the Warrants and the Compensation Warrants (in physical or electronic form, subject to compliance with Applicable Securities Laws, and as the Agent may advise);
- (d) the Agent shall have received an incumbency certificate dated the Closing Date including specimen signatures of the President and Chief Executive Officer, the Chief Financial Officer and any other officer of the Corporation signing this Agreement or any document delivered hereunder;
- (e) the Agent shall have received a certificate dated the Closing Date of the President and Chief Executive Officer and the Chief Financial Officer of the Corporation or other officers of the Corporation acceptable to the Agent, to the effect that, to the best of their knowledge, information and belief, after due inquiry and without personal liability:
  - (i) the representations and warranties of the Corporation contained in this Agreement are true and correct in all respects as if made at and as of the Closing Time;
  - the Corporation has complied with and satisfied the covenants, terms and conditions of this Agreement on its part to be complied with and satisfied up to the Closing Time;
  - (iii) the constating documents of the Corporation delivered at Closing are full, true and correct copies, unamended, and in effect on the date thereof;
  - the minutes or other records of various proceedings and actions of the Corporation's board of directors relating to the Offering and delivered at Closing are full, true and correct copies thereof and have not been modified or rescinded as of the date thereof;
  - no order, ruling or determination having the effect of suspending the sale or ceasing the trading of the Common Shares or any other securities of the Corporation has been issued by any stock exchange, securities commission or securities regulatory authority and is continuing in effect and no proceedings for that purpose have been instituted or are pending;
  - (vi) since the respective dates as of which information is given in the Prospectus as amended by any Prospectus Amendment: (A) there has been no material change (actual, anticipated, contemplated, proposed or threatened, whether financial or otherwise) in the business, financial condition, affairs, operations, business prospects, assets, liabilities or obligations (contingent or otherwise) or capital of the Corporation; and (B) other than the Offering and except as disclosed in the Prospectus or any Prospectus Amendment, as the case may be, no transaction has been entered into by the Corporation which constitutes a material change as defined in Applicable Securities Laws of the Canadian Selling Jurisdictions;
  - (vii) none of the documents filed with applicable securities regulatory authorities since January 1, 2015, contained a misrepresentation as at the time the relevant document was filed that has not since been corrected; and

- (viii) there are no contingent liabilities affecting the Corporation which are material to the Corporation, other than as disclosed in the Final Prospectus or any Prospectus Amendment, as the case may be;
- (f) the Agent shall have received a comfort letter dated the Closing Date, in form and substance satisfactory to the Agent from the Corporation's Auditors, confirming the continued accuracy of the comfort letter to be delivered to the Agent pursuant to subsection 4(a)(v) with such changes as may be necessary to bring the information in such letter forward to a date not more than two Business Days prior to the Closing Date, which changes shall be acceptable to the Agent;
- (g) the Corporation's board of directors shall have authorized and approved the execution and delivery of this Agreement, the Warrant Indenture and the Compensation Warrant Certificates, the allotment, issuance and delivery of the Unit Shares and the creation and issuance of the Warrants and Compensation Warrants and, upon the due exercise of the Warrants and the Compensation Warrants, the allotment, issuance and delivery of the Warrant Shares and the Compensation Shares, as the case may be, and all matters relating thereto;
- (h) the Corporation shall have received the conditional approval from the TSX for the listing of the Unit Shares, Warrant Shares and Compensation Shares for trading on the TSX;
- the Corporation shall not have received any notice from the TSX that the Unit Shares, the Warrant Shares or Compensation Shares shall not be accepted for listing on the TSX;
- (j) that final acceptance of the Offering by the TSX shall be subject only to the fulfilment of Standard Listing Conditions;
- (k) the Agent shall have received confirmation from the Corporation that the Corporation is not on the defaulting issuer's list (or equivalent) maintained by the Canadian Securities Regulators in the Canadian Selling Jurisdictions;
- (1) the Agent shall have received a certificate of good standing or equivalent thereof in respect of the Corporation;
- (m) the Agent and its counsel shall have been provided with all information and documentation reasonably requested relating to their due diligence inquiries and investigations;
- (n) the Corporation will have made and/or obtained the necessary filings, approvals, consents and acceptances of the appropriate securities regulatory authorities required to be made or obtained by the Corporation in connection with the sale of the Offered Units to the Purchasers prior to the Closing Time; as herein contemplated, it being understood that the Agent shall do all that is reasonably required to assist the Corporation to fulfil this condition, subject only to the Standard Listing Conditions and any post-Closing notice filings under applicable United States federal or state securities laws; and
- (o) the Agent shall have received a certificate from the Transfer Agent as to the number of Common Shares issued and outstanding as at a date no more than two Business Days prior to the Closing Date.

The Corporation agrees that the aforesaid legal opinions and certificates to be delivered at the Closing Time will be addressed to the Agent and the Agent's counsel.

### 10. All Terms to be Conditions

The Corporation agrees that the conditions contained in this Agreement, including those terms in Section 9, will be construed as conditions and any breach or failure to comply with any of the conditions shall entitle the Agent to terminate its obligations hereunder by written notice to that effect given to the Corporation at or prior to the Closing Time. It is understood that the Agent may waive, in whole or in part, or extend the time for compliance with, any of such terms and conditions without prejudice to the rights of the Agent in respect of any such terms and conditions or any other or subsequent breach or non-compliance of the Corporation, provided that to be binding on the Agent, any such waiver or extension must be in writing and signed by the Agent.

### 11. Rights of Termination

Without limiting any of the other provisions of this Agreement, the Agent will be entitled, at its option, to terminate and cancel, without any liability on its part or on the part of the Purchasers, its obligations under this Agreement by giving written notice to the Corporation at any time prior to the Closing Time if, after the date hereof and at any time prior to the Closing:

- (a) there shall have occurred any change in any material fact, material change (actual, intended, anticipated or threatened) or the Agent shall have discovered any previously undisclosed material fact (determined by the Agent in its sole discretion, acting reasonably) in relation to the Corporation, which, in the opinion of the Agent, acting reasonably, prevents or restricts trading in or the Distribution of the Offered Units or securities underlying the Offered Units or has or could reasonably be expected to have a Material Adverse Effect;
- (b) there shall have occurred any change in the Applicable Securities Laws of any Selling Jurisdiction or any inquiry, investigation or other proceeding by a securities regulatory authority or any order is issued under or pursuant to any statute of Canada or any province thereof or any stock exchange in relation to the Corporation or any of its securities (except for any inquiry, investigation or other proceeding based upon activities of the Agent and not upon activities of the Corporation), which, in the reasonable opinion of the Agent, would be expected to have a significant adverse effect on the market price of value of the Offered Units or securities underlying the Offered Units;
- (c) there should develop, occur or come into effect or existence any event, action, state, condition or major financial occurrence or catastrophe, accident, public protest, government law or regulation, war or act of terrorism of national or international consequence or any law or regulation which, in the opinion of the Agent, seriously adversely affects or involves, or will seriously adversely affect, or involve, the financial markets or the business, operations or affairs of the Corporation or the market price of value of the Offered Units or securities underlying the Offered Units;
- (d) the state of the financial markets in Canada and the United States is such that, in the reasonable opinion of the Agent, the Offered Units cannot be marketed profitably;
- (e) there is an inquiry or investigation (whether formal or informal) by any Securities Regulator or other regulatory authority in relation to the Corporation or any one of its directors or officers, or any of its principal shareholders, which has not been rescinded, revoked or withdrawn and which, in each case, operates to materially prevent or restrict the Distribution of the Offered Units as contemplated by this Agreement;

- (f) a cease trading order with respect to any securities of the Corporation is made by any Securities Regulator or other competent authority by reason of the fault of the Corporation or its directors, officers and agents and such cease trading order has not been rescinded, revoked or withdrawn;
- (g) the Agent, acting reasonably, is not satisfied in its sole discretion with its due diligence review and investigations;
- (h) the Corporation is in breach of a material term, condition or covenant of this Agreement or any representation or warranty given by the Corporation in this Agreement becomes or is false or misleading; and
- (i) the Corporation receives notice from the TSX that the Unit Shares, Warrant Shares and/or Compensation Shares shall not be accepted for listing on the TSX.

The rights of termination contained herein are in addition to any other rights or remedies that the Agent may have in respect of any default, act or failure to act or noncompliance by the Corporation in respect of any of the matters contemplated by this Agreement or otherwise.

In the event of any such termination, there shall be no further liability on the part of the Agent to the Corporation or on the part of the Corporation to the Agent except in respect of any liability which may have arisen prior to or arise after such termination under any or both of Sections 12 and 13.

### 12. Indemnity and Contribution

The Corporation agrees to indemnify and hold harmless the Agent and each Selling Firm (provided that each such Selling Firm is in material compliance with the covenants and obligations of the Agent set forth in Section 3 herein (as if such Selling Firm were an Agent), to the extent applicable) and each of their subsidiaries and affiliates, and each of their respective directors, officers, employees, shareholders, partners, advisors and agents (collectively, the "Indemnified Parties" and each, an "Indemnified Party"), to the full extent lawful, from and against any and all losses (except loss of profit), claims, actions, suits, proceedings, damages, liabilities or expenses of whatsoever nature or kind, including the aggregate amount paid in reasonable settlement of any actions, suits, proceedings, investigations or claims and the reasonable fees and expenses of their counsel in connection with any action, suit, proceeding, investigation or claim that may be made or threatened against any Indemnified Party or in enforcing this indemnity (collectively, the "Claims") to which an Indemnified Party may become subject or otherwise involved in any capacity insofar as the Claims relate to, are caused by, result from, arise out of or are based upon, directly or indirectly, the performance of professional services rendered to the Corporation by an Indemnified Party hereunder or otherwise in connection with Claims relating to or arising from the following:

- (a) any information or statement (except any information or statement relating solely to or provided by the Agent) contained in the Offering Documents, which at the time and in light of the circumstances under which it was made contains or is alleged to contain a misrepresentation or any omission or any alleged omission to state therein any fact or information (except facts or information relating solely to the Agent and provided by the Agent) required to be stated therein or necessary to make any of the statements therein not misleading in light of the circumstances in which they are made;
- (b) the omission or alleged omission to state in any certificate of the Corporation or of any officers of the Corporation delivered in connection with the Offering any material fact (except facts or information relating solely to the Agent and provided by the Agent) required to be stated therein where such omission or alleged omission constitutes or is alleged to constitute a misrepresentation;
- (c) any order made or any inquiry, investigation or proceeding commenced or threatened by any securities regulatory authority, stock exchange or by any other competent authority, based upon any misrepresentation (as defined in the *Securities Act* (Ontario)) or alleged misrepresentation (except a misrepresentation relating solely to the Agent and provided by the Agent) in the Offering Documents (except any document or material delivered or filed solely by the Agent) based upon any failure or alleged failure to comply with Applicable Securities Laws (other than any failure or alleged failure to comply by the Agent) preventing and restricting the trading in or the sale of the Offered Units in any of the Selling Jurisdictions;
- (d) the non-compliance or alleged non-compliance by the Corporation with any material requirement of Applicable Securities Laws, including the Corporation's non-compliance with any statutory requirement to make any document available for inspection; or
- (e) material breach of any representation, warranty or covenant of the Corporation contained in this Agreement or the failure of the Corporation to comply in all material respects with any of its obligations hereunder,

and further agrees to immediately reimburse each Indemnified Party forthwith, upon demand, for any legal or other expenses reasonably incurred by such Indemnified Party in connection with any Claim.

The Corporation also agrees that no Indemnified Party shall have any liability (either direct or indirect, in contract or tort or otherwise) to the Corporation or any person asserting Claims on the Corporation's behalf or in right for or in connection with the performance of professional services rendered to the Corporation by an Indemnified Party hereunder or otherwise in connection with the matters referred to in this Agreement, whether performed before or after the Corporation's execution of the Agreement, except to the extent that any losses, expenses, Claims, actions, damages or liabilities incurred by the Corporation are determined by a court of competent jurisdiction in a final judgement that has become non-appealable to have resulted from the Indemnified Party's breach of this Agreement, or the gross negligence, wilful misconduct, fraud or dishonesty of such Indemnified Party.

In the event and to the extent that a court of competent jurisdiction in a final judgement that has become non-appealable determines that an Indemnified Party breached this Agreement, or was grossly negligent or guilty of wilful misconduct, fraud or dishonesty in connection with a Claim in respect of which the Corporation has advanced funds to the Indemnified Party pursuant to this indemnity, such Indemnified Party shall immediately reimburse such funds to the Corporation and thereafter this indemnity shall not apply to such Indemnified Party in respect of such Claim.

The Corporation agrees to waive any right the Corporation might have of first requiring the Indemnified Party to proceed against or enforce any other right, power, remedy or security or claim payment from any other person before claiming under this indemnity.

In case any Claim is brought against an Indemnified Party, or an Indemnified Party has received notice of the commencement of any investigation in respect of which indemnity may be sought against the Corporation, the Indemnified Party will give the Corporation prompt written notice of any such Claim or investigation of which the Indemnified Party has knowledge and the Corporation will undertake the investigation and defence thereof on behalf of the Indemnified Party, including the prompt employment of counsel acceptable to the Indemnified Parties affected and the payment of all expenses. Failure by the Indemnified Party to so notify shall not relieve the Corporation of its obligation of indemnification hereunder unless (and only to the extent that) such failure results in the forfeiture by the Corporation of substantive rights or defences or the extent that the Corporation is materially prejudiced thereby.

No admission of liability and no settlement, compromise or termination of any Claim shall be made without the Corporation's consent and the consent of the Indemnified Parties affected, such consents not to be unreasonably withheld.

Notwithstanding that the Corporation will undertake the investigation and defence of any Claim, an Indemnified Party will have the right to employ separate counsel with respect to any Claim and participate in the defence thereof, but the fees and expenses of such counsel will be at the expense of the Indemnified Party unless:

- (a) the employment of such counsel has been authorized in writing by the Corporation;
- (b) the Corporation has not assumed the defence within a reasonable period of time after receiving notice of such Claim;
- (c) the named parties to any such Claim include both the Corporation and the Indemnified Party and the Indemnified Party shall have been advised by counsel that there may be a conflict of interest between the Corporation and the Indemnified Party; or
- (d) the Indemnified Party has been advised in writing by counsel that there are one or more defences available to the Indemnified Party which are different from or in addition to those available to the Corporation, which makes representation by the same counsel inappropriate.

The rights accorded to the Indemnified Parties hereunder shall be in addition to any rights an Indemnified Party may have at common law or otherwise.

If for any reason the foregoing indemnification is unavailable (other than in accordance with the terms hereof) to the Indemnified Parties (or any of them) or insufficient to hold them harmless, then the Corporation shall contribute to the amount paid or payable by the Indemnified Parties as a result of such Claim in such proportion as is appropriate to reflect not only the relative benefits received by the Corporation on the one hand and the Indemnified Parties on the other hand, but also the relative fault of the Corporation and the Indemnified Parties, as well as any other equitable considerations which may be relevant; provided that the Corporation shall, in any event, contribute to the amount paid or payable by the Indemnified Parties as a result of such Claim, any amount in excess of the fees actually received by the Indemnified Parties hereunder in which case such fees and expenses will be for the Corporation's account.

The Corporation hereby acknowledges the Agent as trustee for each of the other Indemnified Parties of the Corporation's covenants under this indemnity with respect to such persons and the Agent agrees to accept such trust and to hold and enforce such covenants on behalf of such persons.

The Corporation agrees to immediately reimburse the Agent monthly for the time spent by an Indemnified Party in connection with any Claim at their reasonable per diem rates. The Corporation also agrees that if any Claim shall be brought against, or an investigation commenced in respect of the Corporation or the Corporation and the Indemnified Parties shall be required to testify, participate or respond in respect of or in connection with the performance of professional services rendered to the Corporation by an Indemnified Party hereunder or otherwise in connection with the matters referred to in this Agreement, the Agent shall have the right to employ its own counsel in connection therewith and the Corporation will immediately reimburse the Agent monthly for the time spent by an Indemnified Party in connection therewith at their reasonable per diem rates together with such fees and disbursements and reasonable out-of-pocket expenses as may be incurred, including the fees and disbursements of the Agent's counsel.

### 13. Expenses

Whether or not the transactions contemplated by this Agreement shall be completed, all expenses of or incidental to the Offering and all expenses of or incidental to all other matters in connection with the transaction set out in this Agreement shall be borne directly by the Corporation, including fees and expenses payable in connection with the qualification of the Offered Units and the Compensation Warrants for Distribution, fees and disbursements of counsel to the Agent incurred in connection with the Offering (to a maximum of \$50,000 plus disbursements and applicable taxes), all fees and disbursements of counsel to the Corporation and local counsel, all fees and expenses of the Corporation's Auditors, all fees or commissions payable in connection with sales of Offered Units to President's List Subscribers, the reasonable fees and expenses relating to the marketing of the Offered Units (including "road shows", marketing meetings, marketing documentation and institutional investor meetings) and all reasonable out-of-pocket expenses of the Agent (including the Agent's travel expenses in connection with due diligence, marketing meetings and "road shows") and all costs incurred in connection with the preparation and printing of the Prospectus, any Prospectus Amendment, and certificates representing the Unit Shares, Warrants and Compensation Warrants issued in connection with the Offering. All reasonable expenses incurred by or on behalf of the Agent and all fees and disbursements of counsel to the Agent payable pursuant to the foregoing shall be deducted from the aggregate purchase price for the Offered Units in accordance with Section 8.

#### 14. Survival of Representations, Warranties, Covenants and Agreements

The representations, warranties, covenants and agreements of the Corporation contained in this Agreement and in any certificate delivered pursuant to this Agreement or in connection with the purchase and sale of the Offered Units shall be true and correct at the Closing Time and shall survive the purchase of the Offered Units and shall continue in full force and effect until the later of: (i) three years following the Closing Date; and (ii) the latest date under the Applicable Securities Laws in which a Purchaser of Offered Units is resident or, if the Applicable Securities Laws do not specify such a date, the latest date under the *Limitations Act, 2002* (Ontario).

### 15. Conflict of Interest

The Corporation acknowledges that the Agent and its affiliates carry on a range of businesses, including providing stockbroking, investment advisory, research, investment management and custodial services to clients and trading in financial products as agent or principal. It is possible that the Agent and other entities in its group that carry on those businesses may hold long or short positions in securities of companies or other entities, which are or may be involved in the transactions contemplated in this Agreement and effect transactions in those securities for their own account or for the account of their respective clients. The Corporation agrees that these divisions and entities may hold such positions and effect such transactions without regard to the Corporation's interests under this Agreement.

### 16. Fiduciary

The Corporation hereby acknowledges that the Agent is acting solely as agent in connection with the offer and sale of the Offered Units. The Corporation further acknowledges that the Agent is acting pursuant to a contractual relationship created solely by this Agreement entered into on an arm's length basis, and in no event do the parties intend that the Agent act or be responsible as a fiduciary to the Corporation, its management, shareholders or creditors or any other person in connection with any activity that the Agent may undertake or have undertaken in furtherance of such offer and sale of the Corporation's securities, either before or after the date hereof. The Agent hereby expressly disclaims any fiduciary or similar obligations to the Corporation, either in connection with the transactions contemplated by this Agreement or any matters leading up to such transactions, and the Corporation hereby confirms its understanding and agreement to that effect. The Corporation and the Agent agree that they are each responsible for making their own independent judgments with respect to any such transactions and that any opinions or views expressed by the Agent to the Corporation regarding such transactions, including, but not limited to, any opinions or views with respect to the price or market for the Corporation's securities, do not constitute advice or recommendations to the Corporation. The Corporation and the Agent is acting as principal and not the agent or fiduciary of the Corporation and the Agent will not assume, any advisory responsibility in favour of the Corporation on other matters). The Corporation hereby waives and releases, to the fullest extent permitted by law, any claims that the Corporation may have against the Agent with respect to any breach or alleged breach of any fiduciary duty to the Corporation in connection with the transactions contemplated by this Agreement.

### 17. Notice

Unless otherwise expressly provided in this Agreement, any notice or other communication to be given under this Agreement (a "Notice") shall be in writing addressed as follows:

If to the Corporation, addressed and sent to:

Titan Medical Inc. 170 University Avenue, Suite 1000 Toronto, Ontario M5H 3B3

 Attention:
 David J. McNally, President and Chief Executive Officer

 Email:
 david.mcnally@titanmedicalinc.com

with a copy (which shall not constitute notice) to:

Borden Ladner Gervais LLP Bay Adelaide Centre, East Tower 22 Adelaide Street West, Suite 3400 Toronto, Ontario M5H 4E3 Attention:Manoj PunditFax:(416) 367-6749Email:mpundit@blg.com

If to the Agent, addressed and sent to:

Bloom Burton Securities Inc. 65 Front Street East, Suite 300 Toronto, Ontario M5E 1B5

Attention:Michael PollardEmail:mpollard@bloomburton.com

with a copy (which shall not constitute notice) to:

Baker & McKenzie LLP Brookfield Place, Bay/Wellington Tower 181 Bay Street, Suite 2100 Toronto, Ontario M5J 2T3

Attention:Sonia YungFax:(416) 863-6275Email:sonia.yung@bakermckenzie.com

or to such other address as any of the persons may designate by Notice given to the others.

Each Notice shall be personally delivered to the addressee or sent by fax or email to the addressee and: (i) a Notice which is personally delivered shall, if delivered on a Business Day, be deemed to be given and received on that day and, in any other case, be deemed to be given and received on the first Business Day following the day on which it is delivered; and (ii) a Notice which is sent by fax or email shall be deemed to be given and received on the first Business Day following the day on which it is sent, provided that the sender has evidence of a successful transmission, such as a fax confirmation or email receipt confirmation.

#### 18. Entire Agreement

The provisions herein contained constitute the entire agreement between the parties relating to the Offering and supersede all previous communications, representations, understandings and agreements between the parties, including the Engagement Letter, with respect to the subject matter hereof whether verbal or written.

#### 19. Press Releases

Any press release connected with the Offering issued by the Corporation shall be issued only after consultation with the Agent and in compliance with Applicable Securities Laws. If the Offering is successfully completed, the Agent shall be permitted to publish, at the Agent's expense, such advertisements or announcements relating to the services provided hereunder in such newspaper or other publications as it may consider appropriate as long as such advertisement or announcement complies with Applicable Securities Laws.

#### - 38 -

#### 20. Funds

Unless otherwise specified, all funds referred to in this Agreement shall be in Canadian dollars.

#### 21. Time of the Essence

Time shall be of the essence of this Agreement.

### 22. Further Assurances

Each of the parties hereto shall cause to be done all such acts and things or execute or cause to be executed all such documents, agreements and other instruments as may reasonably be necessary or desirable for the purposes of carrying out the provisions and intent of this Agreement.

#### 23. Assignment

Except as contemplated herein, no party hereto may assign this Agreement or any part hereof without the prior written consent of the other party hereto. Subject to the foregoing, this Agreement shall enure to the benefit of, and shall be binding upon, the Corporation and the Agent and their successors and legal representatives, and nothing expressed or mentioned in this Agreement is intended or shall be construed to give any other person any legal or equitable right, remedy or claim under or in respect of this Agreement, or any provisions contained in this Agreement, this Agreement and all conditions and provisions of this Agreement being intended to be and being for the sole and exclusive benefit of such persons and for the benefit of no other person except that the covenants and indemnities of the Corporation set out under the heading "Indemnity and Contribution" shall also be for the benefit of the Indemnified Party.

### 24. Severability

If any provision of this Agreement is determined to be void or unenforceable in whole or in part, it shall be deemed not to affect or impair the validity of any other provision of this Agreement and such void or unenforceable provision shall be severable from this Agreement.

#### 25. Singular and Plural, etc.

Unless otherwise expressly provided in this Agreement, words importing only the singular number include the plural and *vice versa* and words importing gender include all genders. References to "Sections", "subsections" or "subparagraphs" are to the appropriate section, subsection or subparagraph of this Agreement. References to any agreement or instrument, including this Agreement, are deemed to be references to the agreement or instrument as varied, amended, modified, supplemented or replaced from time to time, references herein to "including" shall mean "including, without limitation", and any specific references herein to any legislation or enactment are deemed to be references to such legislation or enactment as the same may be amended or replaced from time to time.

#### 26. Governing Law

This Agreement shall be governed by and construed in accordance with the laws of the Province of Ontario and the laws of Canada applicable therein and the parties hereto irrevocably attorn to the jurisdiction of the courts of such province.

#### - 39 -

#### 27. Language

The parties hereto confirm their express wish that this Agreement and all documents and agreements directly or indirectly relating thereto be drawn up in the English language.

Les parties reconnaissent leur volont' express que la pr'sente convention ainsi que tous les documents et contrats s'y rattachant directement ou indirectement soient r'dig's en anglais.

### 28. Counterparts

This Agreement may be executed by any one or more of the parties to this Agreement in any number of counterparts, each of which shall be deemed to be an original, but all such counterparts shall together constitute one and the same agreement.

## 29. Facsimile and Electronic Transmission

The Corporation and the Agent shall be entitled to rely on delivery by facsimile or other electronic means of an executed copy of this Agreement and acceptance by the Corporation and the Agent of that delivery shall be legally effective to create a valid and binding agreement between the Corporation and the Agent in accordance with the terms of this Agreement.

#### [REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]

If the foregoing is in accordance with your understanding and is agreed to by you, please signify your acceptance by executing this letter where indicated below and returning the same to the Agent upon which this letter as so accepted shall constitute an agreement between us.

Yours very truly,

## **BLOOM BURTON SECURITIES INC.**

By: <u>(signed)</u> "Jolyon Burton" Authorized Officer

The foregoing offer is accepted and agreed to as of the date first above written.

### TITAN MEDICAL INC.

By: <u>(signed)</u> "Stephen Randall" Authorized Officer

# SCHEDULE "A"

## CONVERTIBLE SECURITIES

# **OPTIONS**

| EXERCISE PRICE | NUMBER    | EXPIRY DATE        |
|----------------|-----------|--------------------|
| 0.15           | 200,000   | September 7, 2020  |
| 0.15           | 368,059   | September 7, 2024  |
| 0.16           | 91,206    | September 15, 2020 |
| 0.32           | 33,150    | October 7, 2020    |
| 0.43           | 1,500,000 | April 17, 2024     |
| 0.50           | 500,000   | February 7, 2024   |
| 0.56           | 663,368   | August 2, 2018     |
| 0.57           | 8,325,572 | January 17, 2024   |
| 0.83           | 49,591    | March 21, 2018     |
| 0.96           | 305,107   | December 20, 2018  |
| 1.00           | 3,171,558 | August 24, 2021    |
| 1.02           | 183,587   | December 23, 2020  |
| 1.08           | 564,292   | January 27, 2021   |
| 1.39           | 19,746    | December 16, 2019  |
| 1.51           | 16,796    | August 11, 2020    |
| 1.72           | 461,139   | June 9, 2020       |
| 1.76           | 106,096   | March 6, 2019      |
| 1.94           | 362,080   | May 21, 2019       |
|                |           |                    |

Total

16,921,347

# WARRANTS

Below is a table that sets out the various series of the warrants of the Corporation that were previously issued, using historic rates. The disclosure of the potential proceeds in the last column of the table below assumes all warrants are exercised on or before the expiry date. However, there is no assurance that any warrants will be exercised prior to their expiry.

| Ticker<br>Symbol | Issue Date         | Expiry Date        | Number<br>Issued | Number<br>Outstanding | Exercise<br>Price<br>(CDN \$) | Potential<br>Proceeds<br>(CDN \$) |
|------------------|--------------------|--------------------|------------------|-----------------------|-------------------------------|-----------------------------------|
| TMD.WT.C         | March 13, 2013     | March 13, 2018     | 6,260,763        | 5,260,705             | \$1.25                        | 6,575,881                         |
| TMD.WT.F         | November 16, 2015  | November 16, 2020  | 7,012,195        | 7,012,195             | \$1.60                        | 11,219,512                        |
| TMD.WT.G         | February 12, 2016  | February 12, 2021  | 11,670,818       | 11,600,818            | \$1.00                        | 11,600,818                        |
| TMD.WT.G         | February 23, 2016  | February 12, 2021  | 1,746,789        | 1,746,789             | \$1.00                        | 1,746,789                         |
| TMD.WT.H         | March 31, 2016     | March 31, 2021     | 15,054,940       | 15,054,940            | \$1.20                        | 18,065,928                        |
| TMD.WT.H         | April 14, 2016     | March 31, 2021     | 2,258,241        | 2,258,241             | \$1.20                        | 2,709,889                         |
| TMD.WT.I         | September 20, 2016 | September 20, 2021 | 17,083,333       | 17,083,333            | \$0.75                        | 12,812,500                        |
| TMD.WT.I         | October 27, 2016   | September 20, 2021 | 2,030,000        | 2,030,000             | \$0.75                        | 1,522,500                         |
| NOT LISTED       | March 16, 2017     | March 16, 2019     | 10,733,600       | 4,074,708             | \$0.40                        | 1,629,883                         |
| NOT LISTED       | March 16, 2017     | March 16, 2021     | 10,733,600       | 10,657,600            | \$0.50                        | 5,328,800                         |
| NOT LISTED       | June 29, 2017      | June 29, 2022      | 48,388,637       | 2,769,305             | \$0.20                        | 553,861                           |

| Ticker<br>Symbol | Issue Date      | Expiry Date     | Number<br>Issued | Number<br>Outstanding | Exercise<br>Price<br>(CDN \$) | Potential<br>Proceeds<br>(CDN \$) |
|------------------|-----------------|-----------------|------------------|-----------------------|-------------------------------|-----------------------------------|
| NOT LISTED       | July 21, 2017   | June 29, 2022   | 11,117,000       | 11,117,000            | \$0.20                        | 2,223,400                         |
| NOT LISTED       | August 24, 2017 | August 24, 2022 | 16,892,000       | 16,892,000            | \$0.20                        | 3,378,400                         |
| TOTAL            |                 |                 | 160,981,916      | 107,557,634           |                               | 79,368,161                        |

A - 2

# BROKER WARRANTS

| Issue Date         | Number Issued | Exercise Price |
|--------------------|---------------|----------------|
| February 12, 2016  | 794,168       | \$0.90         |
| February 23, 2016  | 122,275       | \$0.90         |
| March 31, 2016     | 1,032,845     | \$1.00         |
| April 14, 2016     | 158,076       | \$1.00         |
| September 20, 2016 | 1,165,494     | \$0.60         |
| October 27, 2016   | 142,100       | \$0.60         |
| March 16, 2017     | 1,500,155     | \$0.35         |
| June 29, 2017      | 103,899       | \$0.15         |
| TOTAL              | 5,019,012     |                |

# SCHEDULE "B"

# **CORPORATION IP**

**Patents** 

| <u>Region</u> | Application Number       | Publication Number         | IP Right Number                         |
|---------------|--------------------------|----------------------------|-----------------------------------------|
| AU            | 2015362021               | 2015362021-                | -                                       |
| CA            | 2913943                  | 2913943                    | _                                       |
| CA            | 2973227                  | 2973227                    |                                         |
| CA            | 2973235                  | 2973235                    |                                         |
| CA            | 2984092                  | -                          |                                         |
| CA            | Not assigned             | -                          | -                                       |
| CN            | Not assigned             | -                          | -                                       |
| CN            | 201380078618             | 105431106                  |                                         |
| CN            | 201580064733.4           | 107107343                  |                                         |
| EP            | 11876682.3               | 2785267                    | -                                       |
| EP            | 17171068.4               | -                          | -                                       |
| EP            | 15866790.7               | 3206842                    | -                                       |
| EP            | 15891039.8               | -                          |                                         |
| EP            | 16734868.9               | 3242774                    |                                         |
| EP            | 16734867.1               | 3242773                    |                                         |
| IN            | 201717021787             | -                          | -                                       |
| IN            | 11772/DELNP/2015         | 11772/DELNP/2015           | -                                       |
| JP            | 2017-531374              | -                          | -                                       |
| JP            | 2016-520200              | 2016528946                 | -                                       |
| KR            | 2017-7017983             | 20170091690                |                                         |
|               |                          |                            |                                         |
| US            | 14/899,768               | 20160143633                | -                                       |
| US            | 14/279,828               | 20140249546                | -                                       |
| US            | 14/262,221               | 20140230595                | -                                       |
| US            | 15/494,740               | 20170225337                | -                                       |
| US            | 15/490,098               | -                          | -                                       |
| US            | 15/485,720               | -                          | -                                       |
| US            | 15/593,000               | -                          | -                                       |
| US            | 15/442,070               | 20170156807                | -                                       |
| US<br>US      | 15/542,356<br>15/542,398 | -                          |                                         |
| US            | 15/552,993               | -                          |                                         |
| US            | 15/677,307               | -                          |                                         |
| US            | 15/686,571               | -                          |                                         |
| US            | 15/690,035               |                            |                                         |
| US            | 15/566,525               | -                          |                                         |
| US            | 15/570,286               | _                          |                                         |
| WO            | PCT/CA2017/000085        | 2017177309                 | -                                       |
| WO            | PCT/CA2016/000193        | 2017008142                 | -                                       |
| WO            | PCT/CA2016/000215        | 2017031568                 | -                                       |
| WO            | PCT/CA2016/000112        | 2016201544                 | -                                       |
| WO            | PCT/CA2017/000011        | 2017124177                 | -                                       |
| WO            | PCT/CA2017/000056        | -                          | -                                       |
| WO            | PCT/CA2016/000316        | 2017124170                 | -                                       |
| WO            | PCT/CA2017/000078        | 2017173524                 | -                                       |
| WO            | PCT/CA2016/000300        | 2017096455                 | -                                       |
| CA            | 2968609                  | 2968609                    | 2968609                                 |
| EP            | 13887243.7               | 2996613                    | 2996613                                 |
| EP            | 11874984.5               | 2773277                    | 2773277                                 |
| US            | 15/211,295               | 20160346051                | 9,681,922                               |
| US            | 15/294,477               | 20170027656                | 9,629,688                               |
| US            | 14/831,045               | 20160030122                | 9,421,068                               |
| US            | 14/302,723               | 20140316435                | 9,149,339                               |
| US            | 13/660,615               | 20130197697                | 8,930,027                               |
| US            | 13/494,852               | 20120253513                | 8,768,509                               |
| US            | 13/106,306               | -                          | 9,033,998                               |
| US            | 12/449,779               | 20100036393                | 8,792,688                               |
| US            | 12/227,582               | 20100030377                | 8,224,485                               |
| US            | 12/655,675               | -                          | 8,306,656                               |
| US            | 12/583,351               | -                          | 8,332,072                               |
| US            | 12/459,292               | -                          | 8,347,754                               |
| US            | 09/474,924               | 20140276956                | 6,358,196                               |
| US<br>US      | 14/261,614<br>13/660,328 | 20140276956<br>20130197538 | 9,724,162<br>9,763,739                  |
| 05            | 15/000,520               | 2013017/330                | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, |
|               |                          |                            |                                         |

| <u>Trademarks</u> |                      |                                   |
|-------------------|----------------------|-----------------------------------|
| <u>Region</u>     | <u>Serial Number</u> | <u>Title</u>                      |
| US                | 87222823             | T TITAN MEDICAL (Stylized/Design) |
| US                | 87222834             | T (Stylized)                      |
| CA                | 1807214              | T TITAN MEDICAL (Stylized/Design) |
| CA                | 1807220              | T (Stylized)                      |

## SCHEDULE "C"

### LICENSOR CONTRACTS

## **Corporation as Licensor**

- Synergist Medical Inc., a predecessor to the Corporation, entered into a patent agreement with Reiza Rayman on May 12, 2008 pursuant to which Synergist Medical Inc. granted to Rayman certain exclusive rights in and to U.S. Patent No. 6,358,196.
- Synergist Medical Inc., a predecessor to the Corporation, entered into a patent agreement with John D. Unsworth on May 1, 2008 pursuant to which Synergist Medical Inc. granted to Unsworth certain exclusive rights in and to U.S. Patent Nos. 8,224,485, 8,768,509, 8,792,688, 9,421,068, and 9,681,922 and U.S. Patent Application No. 15/490,098.

#### SCHEDULE "D"

### COMPLIANCE WITH UNITED STATES SECURITIES LAWS

### A. Definitions

Capitalized terms used in this Schedule "D" and not defined herein shall have the meanings ascribed thereto in the Agreement to which this Schedule is attached, and the following terms shall have the meanings indicated:

- (a) **"Dealer Covered Person**" has the meaning set forth below;
- (b) "Directed Selling Efforts" means "directed selling efforts" as that term is defined in Regulation S. Without limiting the foregoing, but for greater clarity in this Schedule "D", it means, subject to the exclusions from the definition of directed selling efforts contained in Regulation S, any activity undertaken for the purpose of, or that could reasonably be expected to have the effect of, conditioning the market in the United States for any of the Offered Units, the Unit Shares, the Warrants or the Warrant Shares and includes the placement of any advertisement in a publication with a general circulation in the United States that refers to the offering of any of such securities;
- (c) "**Disqualification Event**" has the meaning set forth below;
- (d) "QIB Letter" has the meaning set forth below.
- (e) "Qualified Institutional Buyer" means a "qualified institutional buyer" as that term is defined in Rule 144A;
- (f) **"Regulation D Securities**" has the meaning set forth below;
- (g) "Rule 144A" means Rule 144A under the U.S. Securities Act;
- (h) "Substantial U.S. Market Interest" means a "substantial U.S. market interest" as that term is defined in Regulation S; and
- (i) **"U.S. Subscription Agreement**" has the meaning set forth below.

### B. Representations, Warranties and Covenants of the Agent

The Agent acknowledges and agrees that the Offered Units, the Unit Shares, the Warrants and the Warrant Shares have not been and will not be registered under the U.S. Securities Act or applicable state securities laws, and the Offered Units, the Unit Shares and the Warrants may be offered and sold only in transactions exempt from, or not subject to, the registration requirements of the U.S. Securities Act and any applicable state securities laws. Accordingly, the Agent represents, warrants and covenants to the Corporation that:

1. None of the Agent, the U.S. Selling Group Member, their respective affiliates or any person acting on any of its or their behalf has offered or will offer any Offered Units, Unit Shares or Warrants except: (a) in an "offshore transaction," as such term is defined in Regulation S, outside the United States to non-U.S. Persons in accordance with Rule 903 of Regulation S; or (b) in the United States to, or for the account or benefit of, persons in the United States or U.S. Persons to Qualified Institutional Buyers or Institutional Accredited Investors purchasing pursuant to the exemption from the registration requirements of the U.S. Securities Act under Rule 506(b) of Regulation D and in compliance with similar exemptions under applicable state securities laws as provided in paragraphs 2 through 13 below. Accordingly, none of the Agent, the U.S. Selling Group Member, their respective affiliates or any person acting on any of its or their behalf, has made or will make (except as permitted in paragraphs 2 through 13 below): (i) any offer to sell, or any solicitation of an offer to buy, any Offered Units, Unit Shares or Warrants in the United States or to, or for the account or benefit of, any person in the United States, not a U.S. Person; (ii) any sale of Offered Units, Unit Shares or Warrants to any purchaser unless, at the time the buy order was or is originated, the purchaser was outside the United States, not a U.S. Person and not acting for the account or benefit of a person, or the Agent, the U.S. Selling Group Member, their respective affiliates or person acting on its or their behalf reasonably believed that such purchaser was outside the United States, not a U.S. Person, and not acting for the account or benefit of a person, in the United States or a U.S. Person; or (ii) any Directed Selling Efforts.

- 2. It has not entered and will not enter into any contractual arrangement with respect to the offer and sale of the Offered Units, the Unit Shares or the Warrants, except with the U.S. Selling Group Member, its affiliates, any Selling Firm or with the prior written consent of the Corporation. It shall require the Selling Group Member, its affiliates and any Selling Firm to agree in writing, for the benefit of the Corporation, to comply with, and shall use its best efforts to ensure that the Selling Group Member, its affiliates and any Selling Firm complies with, the same provisions of this Schedule "D" as apply to such Agent as if such provisions applied to the U.S. Selling Group Member, its affiliates and any Selling Firm.
- 3. All offers and sales of Offered Units, Unit Shares and Warrants in the United States or to, or for the account or benefit of, persons in the United States, or U.S. Persons, have been and shall be made only by the U.S. Selling Group Member or a Selling Firm, which is a U.S. broker-dealer registered pursuant to Section 15(b) of the U.S. Exchange Act and under the securities laws of each state in which offers and sales were or will be made (unless exempted from the respective state's broker-dealer registration requirements) and in good standing with the Financial Industry Regulatory Authority, Inc., in compliance with all applicable U.S. federal and state broker-dealer requirements.
- 4. Offers of Offered Units, Unit Shares and Warrants in the United States to, or for the account or benefit of, persons in the United States and U.S. Persons have not been made and shall not be made: (i) by any form of "general solicitation" or "general advertising" (as those terms are used in Rule 502(c) of Regulation D), including, without limitation, advertisements, articles, notices or other communications published in any newspaper, magazine or similar media, or on the internet, or broadcast over radio, television or the internet, or any seminar or meeting whose attendees have been invited by general solicitation or general advertising or (ii) or has taken or will take any action that would constitute a public offering of the Offered Units in the United States within the meaning of Section 4(a)(2) of the U.S. Securities Act.
- 5. The Agent, acting only through the U.S. Selling Group Member or a Selling Firm, has offered and will offer the Offered Units, the Unit Shares and the Warrants in the United States or to, or for the account or benefit of, persons in the United States and U.S. Persons only to offerees with respect to which the Agent, the U.S. Selling Group Member or the Selling Firm has a pre-existing business relationship and has reasonable grounds to believe and does believe, are either Qualified Institutional Buyers or Institutional Accredited Investors (and in compliance with Rule 506(b) of Regulation D and applicable state securities laws).

- 6. Each offeree of Offered Units, Unit Shares or Warrants in the United States, who is a U.S. Person or who is acting for the account or benefit of a person in the United States or a U.S. Person has been or shall be provided with a copy of the final U.S. Memorandum, in the form agreed to by the Corporation and the Agent, including the Prospectus. Prior to any sale of Offered Units, Unit Shares or Warrants to, or for the account of benefit of, a person in the United States or a U.S. Person or to a person who was offered such securities in the United States, each such purchaser shall be provided with a copy of the final U.S. Memorandum, including the Prospectus, and no other written material was used in connection with the offer or sale of the Offered Units, the Unit Shares or the Warrants to, or for the account or benefit of, persons in the United States or U.S. Persons.
- 7. Prior to the completion of any sale by the Corporation of Offered Units in the United States or to, or for the account or benefit of, persons in the United States or U.S. Persons, (i) each such purchaser that is a Qualified Institutional Buyer thereof will be required to execute a Qualified Institutional Buyer Letter in the form attached as Exhibit I to the final U.S. Memorandum (the "QIB Letter") or (ii) each such purchaser that is an Institutional Accredited Investor thereof will be required to execute a subscription agreement in the form attached as Exhibit II to the final U.S. Memorandum (the "U.S. Subscription Agreement").
- 8. Prior to the Closing Date, the Agent will provide the Corporation and the transfer agent of the Corporation with a list of all purchasers of the Offered Units in the United States, who are U.S. Persons, who are purchasing for the account or benefit of persons in the United States or U.S. Persons or who were offered Offered Units in the United States. Prior to the Closing Date, the Agent will provide the Corporation with copies of all QIB Letters and U.S. Subscription Agreements, duly executed by such purchasers for acceptance by the Corporation.
- 9. At Closing, each of the Agent, the U.S. Selling Group Member and any applicable Selling Firm that has offered or sold Offered Units, Unit Shares or Warrants to, or for the account or benefit of, persons in the United States or U.S. Persons will provide a certificate, substantially in the form of Exhibit 1 to this Schedule "D", relating to the manner of the offer and sale of the Offered Units, the Unit Shares and the Warrants to, or for the account or benefit of, persons in the United States and U.S. Persons or the Agent and such persons will be deemed to have represented and warranted that no offers or sales of the Offered Units, the Unit Shares or the Warrants were made to, or for the account or benefit of, persons in the United States or U.S. Persons.
- 10. None of the Agent, the U.S. Selling Group Member, their respective affiliates or any person acting on any of its or their behalf has taken or will take, directly or indirectly, any action in violation of Regulation M under the U.S. Exchange Act with respect to the offer or sale of the Offered Units, the Unit Shares or the Warrants.
- 11. As of the Closing Date, with respect to Offered Units, Unit Shares and Warrants to be offered and sold hereunder in reliance on Rule 506(b) of Regulation D (the "Regulation D Securities"), the Agent represents that none of (i) the Agent or the U.S. Selling Group Member, (ii) the Agent or the U.S. Selling Group Member's general partners or managing members, (iii) any of the Agent's or the U.S. Selling Group Member's directors, executive officers or other officers participating in the offering of the Regulation D Securities, (iv) any of the Agent's or the U.S. Selling Group Member's general partners' or managing members' directors, executive officers or other officers participating in the offering of the Regulation D Securities, (iv) any of the Agent's or the U.S. Selling Group Member's general partners' or managing members' directors, executive officers or other officers participating in the offering of the Regulation D Securities or (v) any other person associated with any of the above persons, including any Selling Firm and any such persons related to such Selling Firm, that has been or will be paid (directly or indirectly) remuneration for solicitation of purchasers in connection with sale of Regulation D Securities (each, a "Dealer Covered Person" and, collectively, the "Dealer Covered Persons"), is subject to any of the "Bad Actor" disqualifications described in Rule 506(d)(1) under Regulation D (a "Disqualification Event").

- 12. As of the Closing Date, the Agent represents that it is not aware of any person (other than any Dealer Covered Person) that has been or will be paid (directly or indirectly) remuneration for solicitation of purchasers in connection with the sale of any Regulation D Securities.
- 13. It is acquiring the Compensation Warrants and Compensation Shares as principal for its own account and not for the benefit of any other person. Furthermore, in connection with the issuance of the Compensation Warrants and Compensation Shares, (i) it is not a U.S. Person and it is not acquiring the Compensation Warrants and Compensation Shares in the United States, or on behalf of a U.S. Person or a person located in the United States, and (ii) the Agreement was executed and delivered outside the United States. It agrees that it will not engage in any Directed Selling Efforts with respect to any Compensation Warrants and Compensation Shares.

#### C. Representations, Warranties and Covenants of the Corporation

The Corporation represents, warrants, covenants and agrees that, as of the date hereof and the Closing Date:

- 1. The Corporation is a "foreign issuer", within the meaning of Regulation S, and reasonably believes that there is no Substantial U.S. Market Interest in the Offered Units, the Unit Shares, the Warrant Shares or any class of the Corporation's equity securities.
- 2. The Corporation is not, and as a result of the sale of the Offered Units, the Unit Shares and the Warrants and the issuance of the Warrant Shares will not be, an "investment company", as defined in the United States Investment Company Act of 1940, as amended, registered or required to registered under such Act.
- 3. During the period in which the Offered Units, the Unit Shares and the Warrants are offered for sale, none of it, its affiliates, or any person acting on its or their behalf (other than the Agent, the U.S. Selling Group Member, any of its or their respective affiliates, or any person acting on any of its or their behalf in respect of which no representation, warranty, covenant or agreement is made): (i) has made or will make any Directed Selling Efforts; or (ii) has engaged in or will engage in any form of "general solicitation" or "general advertising" (as those terms are used in Rule 502(c) of Regulation D) with respect to offers or sales of the Offered Units, the Unit Shares or the Warrants to, or for the account or benefit of, persons in the United States or U.S. Persons, including, without limitation, advertisements, articles, notices or other communications published in any newspaper, magazine or similar media or on the internet, or broadcast over radio, television or the internet, or any seminar or meeting whose attendees have been invited by general solicitation or general advertising or has taken or will take any action that would constitute a public offering of the Offered Units in the United States within the meaning of Section 4(a)(2) of the U.S. Securities Act.
- 4. For a period of six months prior to the commencement of the Offering, none of it, its affiliates or any person acting on its or their behalf (other than the Agent, the U.S. Selling Group Member, any of its or their respective affiliates, or any person acting on any of its or their behalf in respect of which no representation, warranty, covenant or agreement is made): (i) has sold, offered for sale or solicited any offer to buy, and will not sell, offer for sale or solicit any offer to buy, any of the Corporation's securities in a manner that would be integrated with the offer and sale of the Offered Units, the Unit Shares or the Warrants and would cause the exemption from registration set forth in Rule 506(b) of Regulation D to become unavailable with respect to the offer and sale of the Offered Units, the Unit Shares or the Corporation's securities in reliance upon Rule 506(c) of Regulation D or otherwise in a manner that would be integrated with the offer and sale of the Offered Units, the Unit Shares or the Warrants, and (ii) has engaged or will engage in any general solicitation or general advertising (within the meaning of Rule 502(c) of Regulation D) in connection with any offer or sale of the Corporation's securities in reliance upon Rule 506(c) of Regulation D or otherwise in a manner that would be integrated with the offer and sale of the Offered Units, the Unit Shares or the Warrants and would cause the exemption from registration set forth in Rule 506(b) of Regulation D to become unavailable with respect to the offer and sale of the Offered Units, the Unit Shares or the Warrants and would cause the exemption from registration set forth in Rule 506(b) of Regulation D to become unavailable with respect to the offer and sale of the Offered Units, the Unit Shares or the Warrants to, or for the account or benefit of, persons in the United States or U.S. Persons.

- 5. During the period in which the Offered Units, the Unit Shares and the Warrants are offered for sale, none of the Corporation, its affiliates, or any person acting on any of its or their behalf (other than the Agent, the U.S. Selling Group Member, any of its or their respective affiliates or any person acting on its or their behalf, in respect of which no representation, warranty, covenant or agreement is made) has taken or will take any action (i) in violation of Regulation M under the U. S. Exchange Act in connection with the offer or sale of the Offered Units, the Unit Shares or the Warrant Shares or (ii) that would cause the exemption afforded by Rule 506(b) of Regulation D to be unavailable for offers and sales of the Offered Units, the Unit Shares or the Warrants in the United States or to, or for the account or benefit of, persons in the United States or U.S. Persons in accordance with the Agreement, or the exclusion from registration afforded by Rule 903 of Regulation S to be unavailable for offers and sales of the Unit Shares or the Warrants outside the United States to non-U.S. Persons in accordance with the Agreement.
- 6. Within 15 days of the first sale of the Offered Units, the Unit Shares or the Warrants in the United States to, or for the account or benefit of, persons in the United States or U.S. Persons, the Corporation will file a Form D, Notice of Sale, with the United States Securities and Exchange Commission and any applicable state securities commissions in connection with the offer and sale of such securities.
- Neither the Corporation nor any of its predecessors or affiliates has been subject to any order, judgment or decree of any court of competent jurisdiction, temporarily, preliminarily or permanently enjoining such person for failure to comply with Rule 503 of Regulation D.
- 8. Except with respect to offers and sales in accordance with this Agreement (including this Schedule "D") to, or for the account or benefit of, persons in the United States or U.S. Persons that are either Institutional Accredited Investors or Qualified Institutional Buyers in reliance upon the exemption from registration set forth in Rule 506(b) of Regulation D, none of the Corporation, its affiliates, or any person acting on its or their behalf (other than the Agent, the U. S. Selling Group Member, any of its or their respective affiliates or any person acting on any of its or their behalf, in respect of which no representation, warranty, covenant or agreement is made), has made or will make: (A) any offer to sell, or any solicitation of an offer to buy, any Offered Units, Unit Shares or Warrants in the United States or to, or for the account or benefit of, a person in the United States, not a U.S. Person and not acting for the account or benefit of a person in the United States, and any person acting on their behalf reasonably believes that the purchaser is outside the United States, not a U.S. Person and not acting for the account or benefit of a person in the United States, not a U.S. Person.
- 9. As of the Closing Date, with respect to the offer and sale of the Regulation D Securities, none of the Corporation, any of its predecessors, any "affiliated" (as such term is defined in Rule 501(b) of Regulation D) issuer, any director, executive officer or other officer of the Corporation participating in the offering of the Regulation D Securities, any beneficial owner of 20% or more of the Corporation's outstanding voting equity securities, calculated on the basis of voting power, or any promoter (as that term is defined in Rule 405 under the U.S. Securities Act) connected with the Corporation in any capacity at the time of sale of the Regulation D Securities (other than any Dealer Covered Person, as to whom no representation, warranty, acknowledgement, covenant or agreement is made) is subject to any Disqualification Event.

10. As of the Closing Date, the Corporation is not aware of any person (other than any Dealer Covered Person) that has been or will be paid (directly or indirectly) remuneration for solicitation of purchasers in connection with the sale of any Regulation D Securities.

### EXHIBIT 1

### TO SCHEDULE "D"

### AGENT'S CERTIFICATE

In connection with the private placement to, or for the account or benefit of, persons in the United States and U.S. Persons of the Offered Units of Titan Medical Inc. (the "**Corporation**") pursuant to the agency agreement dated November 30, 2017 by and between the Corporation and the Agent (the "**Agreement**"), the undersigned do hereby certify as follows:

- 1. (the "U.S. Selling Group Member") was on the date of each offer and sale of Offered Units, Unit Shares and Warrants in the United States or to, or for the account or benefit of, persons in the United States or U.S. Persons, and is on the date hereof, a duly registered broker-dealer with the United States Securities and Exchange Commission and under the securities laws of each state in which such offers and sales were made (unless exempted from the respective state's broker- dealer registration requirements) and a member of, and in good standing with, the Financial Industry Regulatory Authority, Inc.
- 2. All offers and sales of the Offered Units, the Unit Shares and the Warrants in the United States or to, or for the account or benefit of, persons in the United States and U.S. Persons have been conducted by us through the U.S. Selling Group Member and in accordance with the terms of the Agreement (including Schedule "D" thereto) and all applicable U.S. federal and state broker- dealers requirements.
- 3. Immediately prior to offering Offered Units, the Unit Shares and the Warrants to each prospective purchasers in the United States, who was a U.S. Person or who was acting for the account or benefit of a person in the United States or a U.S. Person (each, a "U.S. Offeree"), we had reasonable grounds to believe and did believe that each U.S. Offeree was either an Institutional Accredited Investor or a Qualified Institutional Buyer and, on the date hereof, we continue to believe that each U.S. Offeree purchasing the Offered Units from the Corporation is either an Institutional Accredited Investor or a Qualified Institutional Buyer.
- 4. Each U.S. Offeree of Offered Units, Unit Shares or Warrants was provided with a copy of the final U.S. Memorandum, in the form agreed to by the Corporation and the Agent, including the Prospectus, and each purchaser of Offered Units, Unit Shares or Warrants who (i) is in the United States, (ii) is a U.S. Person, (iii) is acting for the account or benefit of a person in the United States or a U.S. Person or (iv) was offered Units, Unit Shares or Warrants in the United States, was provided with a copy of the final U.S. Memorandum, including the Prospectus, and no other written material was used in connection with the offer and sale of the Offered Units, the Unit Shares or the Warrants to, or for the account or benefit of, persons in the United States or U.S. Persons;
- 5. No form of "general solicitation" or "general advertising" (as those terms are used in Rule 502(c) of Regulation D) was used by us, including, without limitation, advertisements, articles, notices or other communications published in any newspaper, magazine or similar media or on the internet or broadcast over radio, television or the internet, or any seminar or meeting whose attendees had been invited by general solicitation or general advertising, in connection with the offer and sale of the Offered Units, the Unit Shares or the Warrants to, or for the account or benefit of, persons in the United States or U.S. Persons.

- 6. Prior to any sale of Offered Units, the Unit Shares or Warrants to a U.S. Offeree, we caused each such U.S. Offeree who is (i) a Qualified Institutional Buyer to execute and a QIB Letter in the form of Exhibit I to the U.S. Memorandum or (ii) an Institutional Accredited Investor to execute a U.S. Subscription Agreement substantially in the form of Exhibit II to the U.S. Memorandum.
- 7. Neither we nor any of our affiliates have taken or will take, directly or indirectly, any action in violation of Regulation M under the U.S. Exchange Act with respect to the offer or sale of the Offered Units, the Unit Shares or the Warrants.
- 8. None of (i) the undersigned, (ii) the undersigned's general partners or managing members, (iii) any of the undersigned's directors, executive officers or other officers participating in the offering of the Regulation D Securities, (iv) any of the undersigned's general partners' or managing members' directors, executive officers or other officers participating in the offering of the Regulation D Securities or (v) any other person associated with any of the above persons, including any Selling Firm and any such persons related to such Selling Firm, that has been or will be paid (directly or indirectly) remuneration for solicitation of purchasers in connection with sale of Regulation D Securities (each, a "Dealer Covered Person" and, collectively, the "Dealer Covered Persons"), is subject to any to any of the "Bad Actor" disqualifications described in Rule 506(d)(1) under Regulation D (a "Disqualification Event").
- 9. The undersigned represents that it is not aware of any person (other than any Dealer Covered Person) that has been or will be paid (directly or indirectly) remuneration for solicitation of purchasers in connection with the sale of any Regulation D Securities.
- 10. The offering of the Offered Units, the Unit Shares or the Warrants to, or for the account or benefit of, persons in the United States or U.S. Persons has been conducted by us in accordance with the terms of the Agreement, including Schedule "D" thereto.

Capitalized terms used in this certificate have the meanings given to them in the Agreement, including Schedule "D" attached thereto, unless otherwise defined herein.

DATED this \_\_\_\_\_ day of \_\_\_\_\_, 2017.

| <b>BLOOM BURTON SECURITIES INC.</b> | [U.S. SELLING GROUP MEMBER] |  |
|-------------------------------------|-----------------------------|--|
| Ву:                                 | By:                         |  |
| Name:                               | Name:                       |  |
| Title:                              | Title:                      |  |
|                                     |                             |  |

# TITAN MEDICAL.

### **Titan Medical Announces Filing of Final Prospectus**

### NOT FOR DISTRIBUTION TO UNITED STATES NEWSWIRE SERVICES OR FOR DISSEMINATION IN THE UNITED STATES

TORONTO, Dec. 01, 2017 --**Titan Medical Inc. ("Titan" or the "Company")**(TSX:TMD) (OTCQB:TITXF) advises that it has filed and been receipted for a final short form prospectus (the "**Final Prospectus**") in connection with the marketed offering (the '**Offering**") of units of the Company (the "**Units**") for minimum gross proceeds of CDN\$18,000,000 and maximum gross proceeds of CDN\$23,000,000. Pursuant to the Offering, Titan will issue Units at a price of CDN\$0.50 per Unit. Each Unit is comprised of one common share of the Company (a "**Common Share**") and one Common Share purchase warrant of the Company (a "**Warrant**"). Each Warrant is exercisable for one Common Share at a price of CDN \$0.60 for a period of 5 years following the closing of the Offering.

The Offering will be undertaken on a best efforts basis pursuant to the terms and conditions of an agency agreement dated November 30, 2017 between the Company and Bloom Burton Securities Inc. (the "**Agent**"). In connection with the Offering, the Agent will be paid a cash commission equal to 7.0% of the gross proceeds of the Offering and it will be issued that number of non-transferable broker warrants exercisable for Common Shares equal to 7.0% of the number of Units sold in the Offering (in each case excluding any Units sold to certain excluded subscribers).

The Final Prospectus has been filed in each of the provinces of Ontario, British Columbia and Alberta pursuant to National Instrument 44-101 *-Short Form Prospectus Distributions*. In addition, the Units may also be offered for sale in the United States, by or through United States registered broker-dealers appointed by the Agent as sub-agents, and in certain offshore jurisdictions, in each case under available exemptions from the prospectus and registration requirements of applicable securities laws.

It is expected that closing of the Offering will occur on or about December 5, 2017, or such other date as the Company and the Agent may agree.

The net proceeds of the Offering (the "Net Proceeds") will be used to fund continued development work in connection with the Company's SPORT Surgical System, as well as for working capital and other general corporate purposes. Please see "Use of Proceeds" in the Final Prospectus, which is available under the Company's profile at www.sedar.com, for further details of the use of Net Proceeds.

The Common Shares are listed on the Toronto Stock Exchange (the **'TSX'**) under the symbol "TMD". The TSX has conditionally approved the listing of the Common Shares issuable under the Offering. Listing will be subject to the Company fulfilling all of the requirements of the TSX on or before February 19, 2018.

#### About Titan

Titan is a Canadian public company focused on the design and development of a robotic surgical system for application in minimally invasive surgery (**MIS**"). The Company's SPORT Surgical System, currently under development, includes a surgeon -controlled robotic platform that includes a 3D high-definition vision system and instruments for performing MIS procedures. The surgical system also includes a surgeon workstation that provides the surgeon with an advanced ergonomic interface to the robotic platform for controlling the instruments and provides a 3D high-definition endoscopic view of inside a patient's body. The SPORT Surgical System is designed to enable surgeons to perform a broad set of surgical procedures for general abdominal, gynecological and urologic indications. For more information, visit the Company's website at www.titanmedicalinc.com.

#### **Forward-Looking Statements**

This press release contains "forward-looking statements" which reflect the current expectations of management of the Company. Such statements include, but are not limited to, statements regarding the listing of the Common Shares on the TSX, the proposed use of the Net Proceeds and the proposed closing date of the Offering. Wherever possible, words such as "may", "would", "could", "will", "anticipate", "believe", "plan", "expect", "intend", "estimate", "potential for" and similar expressions have been used to identify these forward-looking statements. These statements reflect management's current beliefs with respect to future events and are based on information currently available to management. Forward-looking statements involve significant risks, uncertainties and assumptions. Many factors could cause the Company's actual results, performance or achievements to be materially different from any future results, performance or achievements that may be expressed or implied by such forward-looking statements, including, without limitation, those listed in the "Risk Factors" section of the Company's Annual Information Form dated March 31, 2017 (which may be viewed at www.sedar.com). Should one or more of these risks or uncertainties materialize, or should assumptions underlying the forward-looking statements prove incorrect, actual results, performance or achievements may vary materially from those expressed or implied by the forward-looking statements contained in this news release. These factors should be considered carefully and prospective investors should not place undue reliance on the forward-looking statements. Although the forward-looking statements contained in the news release are based upon what management currently believes to be reasonable assumptions, the Company cannot assure prospective investors that actual results, performance or achievements will be consistent with these forward-looking statements.

## **U.S. Securities Law Caution**

The securities described herein have not been, and will not be, registered under the United States Securities Act of 1933, as amended (the "U.S. Securities Act"), or any state securities laws, and accordingly, may not be offered or sold to, or for the account or benefit of, persons in the United States or "U.S. persons", as such term is defined in Regulation S promulgated under the U.S. Securities Act ("U.S. Persons"), except in compliance with the registration requirements of the U.S. Securities Act and applicable state securities requirements or pursuant to exemptions therefrom. This press release does not constitute an offer to sell or a solicitation of an offer to buy any of the Company's securities to, or for the account or benefit of, persons in the United States or U.S. Persons.

### CONTACT INFORMATION

LHA Investor Relations Kim Sutton Golodetz (212) 838-3777 kgolodetz@lhai.com or Bruce Voss (310) 691-7100 bvoss@lhai.com

# TITAN MEDICAL.

#### Titan Medical Announces Closing of Previously Announced Public Offering

#### NOT FOR DISTRIBUTION TO UNITED STATES NEWSWIRE SERVICES OR FOR DISSEMINATION IN THE UNITED STATES

TORONTO, Dec. 05, 2017 -- Titan Medical Inc. (the 'Company') (TSX:TMD) (OTCQB:TITXF) is pleased to announce that it has completed its previously announced public offering (the 'Offering') pursuant to an agency agreement dated November 30, 2017 between the Company and Bloom Burton Securities Inc. (the 'Agent').

"We are very pleased with the results of this most recent offering, which based on demand, was significantly upsized from the original offering. We intend to use the capital raised to further the development of our SPORT Surgical System," said David McNally, President and CEO.

The Company completed the closing of the Offering on December 5, 2017 and issued 46,000,000 units (the 'Units') for gross proceeds of CDN \$23,000,000. Each Unit was issued at a price of CDN \$0.50 per Unit and is comprised of one common share of the Company (a "Common Share") and one warrant entitling the holder to purchase one Common Share at a price of CDN \$0.60 until expiry on December 5, 2022. The net proceeds of the Offering will be used to fund continued development work in connection with the Company's SPORT Surgical System, as well as for working capital and other general corporate purposes.

The Common Shares sold and issued in connection with the closing were listed and posted for trading on the Toronto Stock Exchange (the **TSX**") under the symbol TMD at the opening on December 5, 2017.

The Units were qualified for sale by way of a prospectus dated November 30, 2017 (the **Prospectus**") filed by the Company in the Provinces of British Columbia, Alberta and Ontario. The Units were also offered for sale in the United States through a United States registered broker-dealer appointed by the Agent as sub-agent pursuant to exemptions from the registration requirements of the U.S. Securities Act and applicable state laws.

### About Titan Medical Inc.

Titan Medical Inc. is a Canadian public company focused on research and development through to the planned commercialization of computer-assisted robotic surgical technologies for application in minimally invasive surgery ("**MIS**"). The Company is currently developing the SPORT Surgical System, a single-port robotic surgical system. The SPORT Surgical System is comprised of a surgeon-controlled patient cart that includes a 3D high definition vision system and multi-articulating instruments for performing MIS procedures, and a surgeon workstation that provides the surgeon with an advanced ergonomic interface to the patient cart and a 3D endoscopic view inside the patient's body during MIS procedures. With the SPORT Surgical System, the Company aims to pursue a broad set of surgical indications, including general abdominal, gynecologic and urologic procedures.

For more information, please visit the Company's website at www.titanmedicalinc.com.

#### **Forward-Looking Statements**

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Neither TSX nor its Regulation Services Provider (as that term is defined in the policies of the TSX) accepts responsibility for the adequacy or accuracy of this release.

### **Contact Information**

LHA Investor Relations Kim Sutton Golodetz (212) 838-3777 kgolodetz@lhai.com or Bruce Voss (310) 691-7100 bvoss@lhai.com

# TITAN MEDICAL.

### Titan Medical and the Institute of Image-Guided Surgery of Strasbourg Announce the First Installation of SPORT Surgical System in Europe

TORONTO, Dec. 06, 2017 --**Titan Medical Inc. ("Titan" or the "Company")**(TSX:TMD) (OTCQB:TITXF), a medical device company focused on the design, development and commercialization of a robotic surgical system for application in minimally invasive surgery (MIS), and the Institute of image-guided surgery (Institut Hospitalo-Universitaire de Strasbourg: IHU Strasbourg) announce the installation of Titan Medical's SPORT Surgical System at IHU Strasbourg's research facility. This is the first SPORT installation in Europe and the final planned installation at Titan's Center of Excellence sites for feasibility and validation studies to support regulatory submissions. The studies at IHU Strasbourg are expected to commence in the fourth quarter of 2017 and continue into 2018.

David McNally, President and CEO of Titan Medical, said, "We are pleased to announce SPORT's first European installation at IHU Strasbourg, right on schedule. Following Florida Hospital Nicholson Center in Orlando and Columbia University Medical Center in New York, this is our final planned installation at our Center of Excellence sites. We now have achieved a critical milestone of success with installations of the SPORT system at all three of our Center of Excellence sites before the end of 2017. This is a significant positive step for Titan Medical as we continue to deliver our stated milestones on time with the end goal of commercializing the SPORT Surgical System."

"With successful first uses of the SPORT system reported from the two U.S. Center of Excellence sites, we now enthusiastically look forward to conducting the first of the feasibility studies at IHU Strasbourg in the coming weeks," added Mr. McNally.

Prof. Jacques Marescaux, Chief Executive Officer of IHU Strasbourg, said, "We are delighted that Titan Medical has chosen IHU Strasbourg as its first European installation site for feasibility and validation studies of the SPORT system. We look forward to embarking on this exciting journey with Titan Medical and feel confident that IHU's exceptional clinical and research expertise will provide a strong foundation for development of the SPORT Surgical System throughout these studies."

### About the Institute of Image-Guided Surgery / IHU Strasbourg, France

The Institute of Image-Guided Surgery is a unique medical and surgical center dedicated to the management of digestive diseases. It develops innovative surgery to deliver personalized patient care, combining the most advanced minimally invasive techniques and the latest medical imaging methods.

The Institute is:

•

- A healthcare center offering personalized treatment using the least invasive techniques;
   A research center gathering teams to design and develop instruments and procedures for
- A research center gathering teams to design and develop instruments and procedures for the future;
- An international training center for professionals and students driven to learn the most advanced minimally invasive practices; and
- An innovation hub to foster technology transfer through industrial partnerships and creation of startups.

The Institute is a designated part of the "Programme Investissements d'Avenir" and benefits from the financial support of the French government managed by the "Agence Nationale de la Recherche." The Institute is also funded by the Région Alsace, the Conseil Général du Bas-Rhin, the Communauté urbaine de Strasbourg and the European Union.

For more information, please visit IHU Strasbourg's website at www.ihu-strasbourg.eu/ihu/en/.

### About Titan Medical Inc.

Titan Medical Inc. is a Canadian public company focused on research and development through to the planned commercialization of computer-assisted robotic surgical technologies for application in minimally invasive surgery. The Company is currently developing the SPORT Surgical System, a single-port robotic surgical system. The SPORT Surgical System is comprised of a surgeon-controlled patient cart that includes a 3D high definition vision system and multi-articulating instruments for performing MIS procedures, and a surgeon workstation that provides the surgeon with an advanced ergonomic interface to the patient cart and a 3D endoscopic view inside the patient's body during MIS procedures. With the SPORT Surgical System, the Company aims to pursue a broad set of surgical indications, including general abdominal, gynecologic and urologic procedures.

For more information, please visit the Company's website atwww.titanmedicalinc.com.

#### Forward-Looking Statements

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Contacts:

LHA Investor Relations Kim Sutton Golodetz (212) 838-3777 kgolodetz@lhai.com or Bruce Voss (310) 691-7100 bvoss@lhai.com

### Item 1 Name and Address of Company

Titan Medical Inc. (the **"Company"** or **"Titan"**) 170 University Avenue Suite 1000 Toronto, Ontario M5H 3B3

### Item 2 Date of Material Change

November 30, 2017 and December 5, 2017.

### Item 3 News Release

The press releases attached as Schedule "A" and Schedule "B" were disseminated through Marketwired on December 1, 2017 and December 5, 2017 with respect to the material changes.

### Item 4 Summary of Material Change

On November 30, 2017, the Company filed a final short-form prospectus (the '**Prospectus**') with securities regulators in Ontario, British Columbia and Alberta, with respect to its previously announced offering of Units (the "**Offering**').

On December 5, 2017, the Company announced that it had closed the Offering. The Company sold 46,000,000 units (each, a **Unit**") under the Offering at a price of CDN \$0.50 per Unit for gross proceeds of \$23,000,000. Each Unit is comprised of one common share of the Company (a "**Common Share**") and one warrant entitling the holder to purchase one Common Share at a price of CDN \$0.60 for 60 months from the closing date of the Offering.

### Item 5 Full Description of Material Change

5.1 Full Description of Material Change

Please see the press releases attached as Schedule "A" and Schedule "B".

5.2 Disclosure for Restructuring Transactions

Not applicable.

### Item 6 Reliance on subsection 7.1(2) of National Instrument 51-102

Not applicable.

### Item 7 Omitted Information

Not applicable.

# Item 8 Executive Officer

The following executive officer is knowledgeable about the material changes and may be contacted about this report:

Stephen Randall Chief Financial Officer (416) 548-7522 (ext. 152)

Email: <u>stephen@titanmedicalinc.com</u> Website:<u>www.titanmedicalinc.com</u>

Item 9 Date of Report

December 6, 2017.

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Schedule "A"

[See Attached]

# TITAN MEDICAL.

#### **Titan Medical Announces Filing of Final Prospectus**

### NOT FOR DISTRIBUTION TO UNITED STATES NEWSWIRE SERVICES OR FOR DISSEMINATION IN THE UNITED STATES

TORONTO, Dec. 01, 2017 --**Titan Medical Inc. ("Titan" or the "Company")**(TSX:TMD) (OTCQB:TITXF) advises that it has filed and been receipted for a final short form prospectus (the "**Final Prospectus**") in connection with the marketed offering (the '**Offering**") of units of the Company (the "**Units**") for minimum gross proceeds of CDN\$18,000,000 and maximum gross proceeds of CDN\$23,000,000. Pursuant to the Offering, Titan will issue Units at a price of CDN\$0.50 per Unit. Each Unit is comprised of one common share of the Company (a "**Common Share**") and one Common Share purchase warrant of the Company (a "**Warrant**"). Each Warrant is exercisable for one Common Share at a price of CDN \$0.60 for a period of 5 years following the closing of the Offering.

The Offering will be undertaken on a best efforts basis pursuant to the terms and conditions of an agency agreement dated November 30, 2017 between the Company and Bloom Burton Securities Inc. (the "**Agent**"). In connection with the Offering, the Agent will be paid a cash commission equal to 7.0% of the gross proceeds of the Offering and it will be issued that number of non-transferable broker warrants exercisable for Common Shares equal to 7.0% of the number of Units sold in the Offering (in each case excluding any Units sold to certain excluded subscribers).

The Final Prospectus has been filed in each of the provinces of Ontario, British Columbia and Alberta pursuant to National Instrument 44-101 -*Short Form Prospectus Distributions*. In addition, the Units may also be offered for sale in the United States, by or through United States registered broker-dealers appointed by the Agent as subagents, and in certain offshore jurisdictions, in each case under available exemptions from the prospectus and registration requirements of applicable securities laws.

It is expected that closing of the Offering will occur on or about December 5, 2017, or such other date as the Company and the Agent may agree.

The net proceeds of the Offering (the "**Net Proceeds**") will be used to fund continued development work in connection with the Company's SPORT Surgical System, as well as for working capital and other general corporate purposes. Please see "Use of Proceeds" in the Final Prospectus, which is available under the Company's profile at www.sedar.com, for further details of the use of Net Proceeds.

The Common Shares are listed on the Toronto Stock Exchange (the **'TSX'**) under the symbol "TMD". The TSX has conditionally approved the listing of the Common Shares issuable under the Offering. Listing will be subject to the Company fulfilling all of the requirements of the TSX on or before February 19, 2018.

#### About Titan

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Schedule "B"

[See Attached]

# TITAN MEDICAL.

#### Titan Medical Announces Closing of Previously Announced Public Offering

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"We are very pleased with the results of this most recent offering, which based on demand, was significantly upsized from the original offering. We intend to use the capital raised to further the development of our SPORT Surgical System," said David McNally, President and CEO.

The Company completed the closing of the Offering on December 5, 2017 and issued 46,000,000 units (the 'Units'') for gross proceeds of CDN \$23,000,000. Each Unit was issued at a price of CDN \$0.50 per Unit and is comprised of one common share of the Company (a "Common Share") and one warrant entitling the holder to purchase one Common Share at a price of CDN \$0.60 until expiry on December 5, 2022. The net proceeds of the Offering will be used to fund continued development work in connection with the Company's SPORT Surgical System, as well as for working capital and other general corporate purposes.

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### **Contact Information**

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### Titan Medical Strengthens Patent Portfolio With Issuance of Two Canadian Patents and Allowance of a Japanese Patent

TORONTO, Dec. 13, 2017 -- **Titan Medical Inc. ("Titan" or the "Company")**(TSX:TMD) (OTCQB:TITXF), a medical device company focused on the design, development and commercialization of a robotic surgical system for application in minimally invasive surgery ("MIS"), announces the granting of Canadian Patent CA 2973227 and CA 2973235.

These patents are related generally to control methods for robotic surgical systems, including the provision of select autonomous control and safety functions that enable optimal controllability of robotic instruments during use. The methods describe alignment control of robotic instruments, including snake-like or multi-articulated instruments as employed in the SPORT system, which are important for facilitating movement within the abdomen. Corresponding patent applications are pending in the U.S. and Europe, and the Company anticipates future issuances in multiple jurisdictions.

In addition to the issuance of the Canadian patents, the Company has received an official Decision to Grant from the Japan Patent Office regarding a pending Japanese patent application. This application is related to one of the Company's previously issued European Patents, EP 2996613, which describes an articulated tool positioner and system. Upon issuance, which is expected in 2018, the patent will be the first issued to the Company outside of North America and Europe.

David McNally, President and CEO of Titan Medical, said, "Intellectual property is core to our future success and we are excited to strengthen our proprietary position with the issuance of the patents in Canada, the fourth and fifth patents issued this year related to our unique single-port robotic surgical system. Furthermore, the Decision to Grant received from the Japan Patent Office will assist in positioning Titan competitively in the global market for robotic surgical systems. We are encouraged by the growth of our patent portfolio in 2017, which demonstrates the novelty of the design of the SPORT system, and we are committed to continuing to expand Titan's patent portfolio in 2018 and beyond."

## About Titan Medical Inc.

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For more information, please visit the Company's website atwww.titanmedicalinc.com.

#### Forward-Looking Statements

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### Titan Medical Reports First Use of SPORT Surgical System in Europe at the Institute of Image-Guided Surgery of Strasbourg

TORONTO, Dec. 20, 2017 -- **Titan Medical Inc. ("Titan" or the "Company")**(TSX:TMD) (OTCQB:TITXF), a medical device company focused on the design, development and commercialization of a robotic surgical system for application in minimally invasive surgery ("MIS"), reports the successful first use of its SPORT Surgical System in Europe. These studies in general and urologic surgery at the Institute of Image-Guided Surgery at the Institut Hospitalo-Universitaire de Strasbourg, France ("IHU Strasbourg") are part of the feasibility and validation studies intended to support regulatory submissions.

David McNally, President and CEO of Titan Medical, said, "After our installation of the SPORT system at IHU Strasbourg earlier this month, surgeons have now successfully completed the first preclinical single-port robotic surgeries in Europe using the SPORT system. We are honored that highly-regarded surgeons Pr. Lee Swanstrom from IHU Strasbourg, Dr. Jelle Ruurda from University Medical Center Utrecht, the Netherlands, and Dr. Eric Barret from Institut Mutualiste Montsouris, Paris, directed and performed a variety of abdominal, oncologic and urologic procedures. These first-use studies provide valuable insight into procedures we may focus on during commercialization."

Lee Swanstrom, MD, FACS, Chief Innovation Officer of IHU Strasbourg, said, "I was pleased with my first experience with the SPORT system for applications in abdominal procedures. There are many patients undergoing general surgical procedures who could greatly benefit from a reduced number of incisions. Single-port robotic surgery can be a truly enabling solution for patients and surgeons alike, and it is exciting to see that the SPORT system takes us much closer to that possibility."

Jelle Ruurda, MD, a gastrointestinal and oncologic surgeon at University Medical Center Utrecht, who has several years of robotic surgery experience, commented, "Many oncologic general surgery procedures require specimen retrieval at the end of the procedure. These procedures are natural applications for single-port robotic surgery. My first operation of the SPORT system in a preclinical environment was very exciting, and the system shows great promise for future clinical use. I look forward to the opportunity to work together with Titan Medical to evolve a single-port robotic surgery option for my oncology patients. Based on this first experience, I am confident that single-port robotic surgery has a bright future."

Eric Barret, MD, a world-renowned robotic urologic surgeon at Institut Mutualiste Montsouris, said, "Having performed many single-incision robotic surgeries with flexible, non-wristed and crossed-over instruments, my first experience with the SPORT system was exceptional. The SPORT system addresses many limitations of previous laparoscopic and robotic single-incision surgery approaches, and holds significant promise for meaningful use in urologic applications."

Mr. McNally concluded, "Titan has now successfully installed SPORT systems at all three Centers of Excellence in the United States and Europe, on or ahead of schedule. With the planning and guidance of respected laparoscopic and robotic surgery experts, we have observed the first single-port robotic surgery procedures performed with the SPORT system in gynecologic, urologic, general surgery and colorectal specialties. The objectives of each of the preclinical surgeries have been accomplished. The achievement of these milestones sets a strong foundation for us to build on in 2018, as we prepare for our regulatory submissions and commercialization."

## About the Institute of Image-Guided Surgery / IHU Strasbourg, France

The Institute of Image-Guided Surgery is a unique medical and surgical center dedicated to the management of digestive diseases. It develops innovative surgery to deliver personalized patient care, combining the most advanced minimally invasive techniques and the latest medical imaging methods.

The Institute is:

- A healthcare center offering personalized treatment using the least invasive techniques;
- A research center gathering teams to design and develop instruments and procedures for the future;
- An international training center for professionals and students driven to learn the most advanced minimally invasive practices; and
- An innovation hub to foster technology transfer through industrial partnerships and creation of startups.

The Institute is a designated part of the "Programme Investissements d'Avenir" and benefits from the financial support of the French government managed by the "Agence Nationale de la Recherche." The Institute is also funded by the Région Grand Est, the Conseil Départemental du Bas-Rhin, the Eurometropole de Strasbourg and the European Union.

For more information, please visit IHU Strasbourg's website at www.ihu-strasbourg.eu/ihu/en/.

## About Titan Medical Inc.

Titan Medical Inc. is a Canadian public company focused on research and development through to the planned commercialization of computer-assisted robotic surgical technologies for application in minimally invasive surgery. The Company is currently developing the SPORT Surgical System, a single-port robotic surgical system. The SPORT Surgical System is comprised of a surgeon-controlled patient cart that includes a 3D high definition vision system and multi-articulating instruments for performing MIS procedures, and a surgeon workstation that provides the surgeon with an advanced ergonomic interface to the patient cart and a 3D endoscopic view inside the patient's body during MIS procedures. With the SPORT Surgical System, the Company aims to pursue a broad set of surgical indications, including general abdominal, gynecologic and urologic procedures.

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### Titan Medical to Host Business Update Conference Call on February 6, 2018

TORONTO, Jan. 30, 2018 -- **Titan Medical Inc. ("Titan" or the "Company")**(TSX:TMD) (OTCQB:TITXF), a medical device company focused on the design, development and commercialization of a robotic surgical system for application in minimally invasive surgery ("MIS"), announces that management will host a conference call on Tuesday, February 6, 2018 at 4:30 p.m. ET to provide a business update on Titan Medical's SPORT Surgical System. Ricardo Estape, M.D., renowned robotic gynecologic oncology surgeon with South Miami Gynecology Oncology Group, will participate in the call and provide thoughts on his experience with Titan's SPORT single port system in validation studies conducted at the Florida Hospital Nicholson Center, one of the Company's three centers of excellence.

To access the conference call, the dial-in numbers are (866) 595-8403 (U.S. and Canada toll free), and (706) 758-9979 (International). All listeners should provide the operator with the following conference ID: 6886519.

Following the conclusion of the conference call, a replay will be available through February 12, 2018 and can be accessed by dialing (855) 859-2056 (U.S. and Canada toll free), and (404) 537-3406 (International). All listeners should provide the operator with the following conference ID: 6886519. The call will also be archived on the Company's website for a period of time at <u>www.titanmedicalinc.com</u>.

### About Titan Medical Inc.

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## World's First Single-Port Prostatectomy Using Titan Medical's SPORT Surgical System Completed in a Preclinical Setting

TORONTO, Feb. 06, 2018 -- **Titan Medical Inc. ("Titan" or the "Company")** (TSX:TMD) (OTCQB:TITXF), a medical device company focused on the design, development and commercialization of a robotic surgical system for application in minimally invasive surgery ("MIS"), reports the successful completion of a single-port prostatectomy procedure using the SPORT Surgical System in a preclinical setting. This procedure, conducted at the Institute of Image-Guided Surgery at the Institut Hospitalo-Universitaire de Strasbourg, France ("IHU Strasbourg"), is part of the feasibility and validation studies intended to support submissions to regulators in both the United States and European Union.

David McNally, President and CEO of Titan Medical, said, "We have conducted numerous feasibility studies at our three centers of excellence in a variety of surgical disciplines over the last four months. These studies, conducted on procedures with varying degrees of complexity, have further validated the promise of single-port robotic surgery. We are now thrilled to report that we have demonstrated the successful completion of a single-port prostatectomy using the SPORT system in a preclinical setting. This is a particularly significant milestone because multi-port robotic prostatectomy is today's standard of care. We are excited that under the expert guidance of Dr. Eric Barret from Institut Mutualiste Montsouris in Paris we were able to accomplish a complex urologic cancer procedure through a single incision using the SPORT system."

Eric Barret, M.D., a world-renowned robotic urologic surgeon, said, "Prostatectomy is a highly complex and advanced urologic procedure that many surgeons have now been able to perform routinely with up to five ports using available robotic technology. The ultimate goal must be to push the envelope further and determine whether we can perform the same procedure through a single incision around the umbilicus, thus creating a virtually scar-less prostatectomy and potentially an outpatient fast-track procedure. My experience with Titan Medical's SPORT system in attempting the first single-port prostatectomy was remarkable. I was able to complete all of the critical tasks of a successful prostate removal surgery through a single incision with sufficient access and reach using the current instrument offering. This is very encouraging."

This procedure video and other preclinical videos in urological, general surgery and colorectal surgical applications can be viewed on the Company's website at http://www.titanmedicalinc.com/technology/#videos.

## About the Institute of Image-Guided Surgery / IHU Strasbourg, France

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#### **Titan Medical Reports 2017 Financial Results**

TORONTO (February 13, 2018) – Titan Medical Inc. (TSX: TMD) (OTCQB: TITXF) ("Titan" or "the Company), a medical device company focused on the design and development of a robotic surgical system for application in minimally invasive surgery ("MIS"), announces financial results for the 12 months ended December 31, 2017.

All financial results are prepared under Canadian GAAP and are reported in U.S. dollars, unless otherwise stated. The audited financial statements and management's discussion and analysis for the year ended December 31, 2017 may be viewed on SEDAR at <u>www.sedar.com</u>.

David McNally, President and CEO, said, "I joined Titan Medical in January 2017 and based on our achievements this past year, I am more confident than ever in our future. With the addition of Dr. Perry Genova, our Senior Vice President of R&D, and Curtis Jensen, our Vice President of Quality and Regulatory Affairs, we now have a management team experienced in complex medical device development and commercialization, including relevant expertise in engineering, regulatory affairs, intellectual property and global marketing."

Mr. McNally continued, "I am proud that our team successfully met all of our published 2017 milestones on or ahead of schedule. Our work in 2017 culminated in the first single-port procedures performed at our three Centers of Excellence in the U.S. and Europe. Having now validated the performance of our single-port robotic surgical system, during 2018 we will focus on further product development in key areas identified as opportunities for improvement and competitive advantage before launch. We will also continue to actively engage with both the U.S. FDA and our European Notified Body to ensure we pursue the least burdensome yet fully compliant pathways toward regulatory clearances in both geographies."

In conclusion, Mr. McNally said, "We acknowledge that the work ahead will impact our historical timeline to commercialization. We also know that the specific timetable and requirements of regulatory submissions will become clear over the coming months. However, based on the enthusiasm of the experienced robotic surgeons who have operated prototypes of our system, we are confident our single-port surgical system can play a meaningful role in advancing robotically-assisted surgery, and it's worth our investment of time and capital to do the job right."

#### **Operational highlights for 2017 include:**

On February 6, 2017, the Company announced the appointment of Perry A. Genova, PhD as Vice President of Research and Development.

- On April 3, 2017, the Company announced the appointment of Curtis R. Jensen as Vice President of Quality and Regulatory Affairs.
- On July 10, 2017, the Company announced a collaboration with Florida Hospital Nicholson Center in Celebration, Fla. for feasibility and validation studies to support regulatory applications for the SPORT Surgical System.
- On August 22, 2017, the Company announced the signing of an agreement with Institut Hospitalo-Universitaire de Strasbourg in France for feasibility and validation studies to support regulatory applications for the SPORT system.
- On September 18, 2017, the Company and Florida Hospital Nicholson Center announced the installation of a prototype SPORT system at the hospital's training facility, the first installation in the world to support preclinical feasibility and validation studies.
- On September 25, 2017, the Company announced the successful completion of the world's first gynecologic, colorectal and urologic single-port procedures
  using the prototype SPORT system at the Florida Hospital Nicholson Center.
- On October 23, 2017, the Company and Columbia University Medical Center announced the installation of a prototype SPORT system at Columbia's simulation training facility in New York City, the second U.S. installation to support preclinical feasibility and validation studies and the first installation at an academic medical center.
- Throughout the fourth quarter of 2017, the Company obtained preclinical evidence through surgeons performing numerous single-port procedures using
  prototype SPORT systems, with select surgeon-narrated videos of the procedures available on its website.
- Throughout 2017, the Company enhanced its intellectual property position through the continued filing of patents directed at important aspects of the SPORT system, and was awarded European and U.S. patents directed at the innovative multi-articulated instrumentation of the SPORT system at the heart of its competitive advantage.

## Financial highlights for 2017 include:

- Research and development expenses for 2017 were \$12,900,855, compared with \$22,577,885 in 2016.
- Including adjustment for warrant liability, net and comprehensive loss for 2017 was \$33,586,984, compared with a net and comprehensive loss of \$23,323,497 in 2016.
- The Company completed a public offering on June 29, 2017 for gross proceeds of \$5,576,357, followed by a second closing on July 21, 2017 for additional gross proceeds of \$1,328,871.
- On August 24, 2017, the Company announced it completed the conversion to equity of Longtai Medical Inc.'s \$2.0 million deposit that had been previously scheduled to be refunded to Longtai.
- On October 31, 2017, the Company completed a private placement involving numerous robotic surgeons in the U.S., for gross proceeds of \$2,677,732.
- On December 5, 2017, the Company completed a public offering for gross proceeds of \$17,888,900.
- Cash, cash equivalents and deposits with product development service providers as of December 31, 2017 were \$28,668,927, compared with \$6,356,559 as of December 31, 2016.

#### About Titan Medical Inc.

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### Titan Medical Granted Patent Related to Instrument End-Effector for Use in Robotic Surgery

TORONTO, Feb. 27, 2018 -- **Titan Medical Inc. ("Titan" or the "Company")**(TSX:TMD) (OTCQB:TITXF), a medical device company focused on the design, development and commercialization of a robotic surgical system for application in minimally invasive surgery ("MIS"), has been granted Canadian Patent No. CA 2,982,615, titled "End Effector Apparatus for a Surgical Instrument." This patent is related generally to a novel end-effector actuation mechanism, especially suitable for small instruments, such as those used in laparoscopic and robotic surgery. A corresponding patent application is pending in the U.S. With the issuance of this patent, the Company has ownership of 21 issued patents and has 49 patent applications pending.

David McNally, President and CEO of Titan Medical said, "Last year, we were granted our first patents related to our single port robotic surgical system and we are pleased to continue the building of our patent estate in 2018. This invention potentially allows us a unique means for actuating a small-scale end-effector, something that is critical when working with smaller instruments for single-port surgery. We expect to expand our patent portfolio with a corresponding favorable grant of the pending U.S. patent application, as well as through additional grants and filings covering innovative single-port related technologies."

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## Titan Medical to Present at the 30th Annual ROTH Conference

TORONTO, March 01, 2018 -- **Titan Medical Inc.** (TSX:TMD) (OTCQB:TITXF) ("Titan" or "the Company), a medical device company focused on the design and development of a robotic surgical system for application in minimally invasive surgery ("MIS"), today announced that David McNally, President and CEO of the Company, will present a corporate overview at the 30<sup>th</sup> Annual ROTH Conference on Monday, March 12 at 8:00 a.m. PST. The conference will be held March 11-13, 2018 at The Ritz Carlton, Laguna Niguel in Orange County, CA.

Mr. McNally's presentation will be webcast live and available for replay in the Investors section of Titan Medical's website at titanmedicalinc.com/investors.

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#### **Titan Medical Announces Marketed Offering of Units**

### NOT FOR DISTRIBUTION TO UNITED STATES NEWSWIRE SERVICES OR FOR DISSEMINATION IN THE UNITED STATES

TORONTO, March 06, 2018 -- **Titan Medical Inc. ("Titan" or the "Company")** (TSX:TMD) (OTCQB:TITXF), a medical device company focused on the design, development and commercialization of a robotic surgical system for application in minimally invasive surgery ("**MIS**"), announces today that it has filed and been receipted for a preliminary short form prospectus (the "**Preliminary Prospectus**") with securities regulators in the provinces of Ontario, British Columbia and Alberta in connection with a proposed marketed offering of units (the "**Units**") of the Company (the "**Offering**"). Each Unit will be comprised of one common share of the Company and one common share purchase warrant (a "**Warrant**"). The Offering will be undertaken on a "best efforts" agency basis.

The number of Units to be distributed, the price of each Unit, the minimum and maximum size of the Offering, and the exercise price and term of each Warrant will be determined by negotiation between the Company and the Agent (as defined herein) in the context of the market with final terms to be determined at the time of pricing. Bloom Burton Securities Inc. (the "Agent") is the sole agent for the Offering. The Units may also be offered for sale in the United States through United States registered broker-dealers on a private placement basis pursuant to an exemption from the registration requirements of the United States Securities Act of 1933, as amended (the "U.S. Securities Act") and applicable state laws.

The Offering is subject to a number of customary conditions, including, without limitation, receipt of all regulatory and stock exchange approvals. The net proceeds of the Offering will be used to fund continued development work in connection with the Company's SPORT Surgical System, as well as for working capital and other general corporate purposes. Further details are disclosed in the Preliminary Prospectus, available at www.sedar.com.

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This news release contains "forward-looking statements" which reflect the current expectations of management of the Company's future growth, results of operations, performance and business prospects and opportunities. Wherever possible, words such as "may", "would", "could", "will", "anticipate", "believe", "plan", "expect", "intend", "estimate", "potential for" and similar expressions have been used to identify these forward-looking statements. These statements, including with respect to the use of the net proceeds of the Offering, reflect management's current beliefs with respect to future events and are based on information currently available to management. Forward-looking statements involve significant risks, uncertainties and assumptions. Many factors could cause the Company's actual results, performance or achievements to be materially different from any future results, performance or achievements that may be expressed or implied by such forward-looking statements, including, without limitation, those listed in the "Risk Factors" section of the Company's Annual Information Form dated March 31, 2017 (which may be viewed at www.sedar.com). Should one or more of these risks or uncertainties materialize, or should assumptions underlying the forward-looking statements prove incorrect, actual results, performance, or achievements may vary materially from those expressed or implied by the forward-looking statements. Although the forward-looking statements contained in the news release. These factors should be considered carefully, and prospective investors should not place undue reliance on the forward-looking statements. Although the forward-looking statements contained in the news release are based upon what management currently believes to be reasonable assumptions, the Company cannot assure prospective investors that actual results, performance or achievements with these forward-looking statements.

#### **U.S. Securities Law Caution**

The securities described herein have not been, and will not be, registered under the U.S. Securities Act, or any state securities laws, and accordingly, may not be offered or sold to, or for the account or benefit of, persons in the United States or "U.S. persons", as such term is defined in Regulation S promulgated under the U.S. Securities Act ("U.S. Persons"), except in compliance with the registration requirements of the U.S. Securities Act and applicable state securities requirements or pursuant to exemptions therefrom. This press release does not constitute an offer to sell or a solicitation of an offer to buy any of the Company's securities to, or for the account or benefit of, persons in the United States or U.S. Persons.

# **Contact Information**

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or

Bruce Voss (310) 691-7100 bvoss@lhai.com

### Titan Medical Announces Pricing of Marketed Offering of Units

TORONTO, March 07, 2018 -- Titan Medical Inc. ("Titan" or the "Company") (TSX:TMD) (OTCQB:TITXF), a medical device company focused on the design, development and commercialization of a robotic surgical system for application in minimally invasive surgery ("MIS"), is pleased to announce today that it has priced its previously announced marketed offering (the "Offering") of units of the Company (the "Units"). Pursuant to the Offering, Titan will issue Units at a price of CDN \$0.30 per Unit. Each Unit is comprised of one common share of the Company (a "Common Share") and one Common Share purchase warrant of the Company (a "Warrant"). Each Warrant is exercisable for one Common Share at a price of CDN \$0.35, for a period of 5 years following the closing of the Offering.

The Offering will be undertaken on a best efforts basis pursuant to the terms and conditions of an agency agreement to be entered into between the Company and Bloom Burton Securities Inc. (the "Agent"). In connection with the Offering, the Agent will be paid a cash commission equal to 7.0% of the gross proceeds of the Offering and it will be issued that number of non-transferable broker warrants exercisable for Common Shares equal to 7.0% of the number of Units sold in the Offering (in each case excluding any Units sold to certain excluded subscribers).

A preliminary short form prospectus in respect of the Offering dated March 6, 2018 (the "**Preliminary Prospectus**") has been filed in each of the provinces of Ontario, British Columbia and Alberta pursuant to National Instrument 44-101 - *Short Form Prospectus Distributions*. In addition, the Units may also be offered for sale in the United States, by or through United States registered broker-dealers appointed by the Agent as sub-agents, and in certain offshore jurisdictions, in each case under available exemptions from the prospectus and registration requirements of applicable securities laws. The Company intends to file an amended and restated preliminary short form prospectus (the "Amended and Restated Preliminary Prospectus") with the securities regulatory authorities in each of the provinces of Ontario, British Columbia and Alberta, to provide additional details concerning the Offering, including pricing information.

The net proceeds of the Offering (the "**Net Proceeds**") will be used to fund continued development work in connection with the Company's SPORT Surgical System, as well as for working capital and other general corporate purposes. Please see "Use of Proceeds" in the Preliminary Prospectus, which is available under the Company's profile at www.sedar.com, for further details of the use of Net Proceeds.

The Common Shares are listed on the Toronto Stock Exchange (the **'TSX''**) under the symbol **''TMD''**. An application will be made to list the Common Shares issuable under the Offering for trading on the TSX. Listing will be subject to the Company fulfilling all of the requirements of the TSX.

#### About Titan

Titan is a Canadian public company focused on the design and development of a robotic surgical system for application in minimally invasive surgery. The Company's SPORT Surgical System, currently under development, includes a surgeon-controlled robotic platform that includes a 3D high-definition vision system and instruments for performing MIS procedures. The surgical system also includes a surgeon workstation that provides the surgeon with an advanced ergonomic interface to the robotic platform for controlling the instruments and provides a 3D high-definition endoscopic view of inside a patient's body. The SPORT Surgical System is designed to enable surgeons to perform a broad set of surgical procedures for general abdominal, gynecological and urologic indications. For more information, visit the Company's website at www.titanmedicalinc.com.

#### Forward-Looking Statements

This press release contains "forward-looking statements" which reflect the current expectations of management of the Company. Such statements include, but are not limited to, statements regarding receipt of applicable regulatory approvals and the timing thereof, the filing of the Amended and Restated Preliminary Prospectus, the listing of the Common Shares on the TSX and the proposed use of the Net Proceeds. Wherever possible, words such as "may", "would", "could", "will", "anticipate", "believe", "plan", "expect", "intend", "estimate", "potential for" and similar expressions have been used to identify these forward-looking statements. These statements reflect management's current beliefs with respect to future events and are based on information currently available to management. Forward-looking statements involve significant risks, uncertainties and assumptions. Many factors could cause the Company's actual results, performance or achievements to be materially different from any future results, performance or achievements that may be expressed or implied by such forward-looking statements, including, without limitation, those listed in the "Risk Factors" section of the Company's Annual Information Form dated March 31, 2017 (which may be viewed at <u>www.sedar.com</u>). Should one or more of these risks or uncertainties materialize, or should assumptions underlying the forward looking statements prove incorrect, actual results, performance or achievements may vary materially from those expressed or implied by the forward-looking statements contained in this news release. These factors should be considered carefully and prospective investors should not place undue reliance on the forward-looking statements. Although the forward-looking statements contained in the news release are based upon what management currently believes to be reasonable assumptions, the Company cannot assure prospective investors that actual results, performance or achievements will be consistent with these forward-looking statements.

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CONTACT INFORMATION

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## Titan Medical to Present at the 28th Annual Oppenheimer Healthcare Conference

TORONTO, March 15, 2018 -- **Titan Medical Inc.** (TSX:TMD) (OTCQB:TITXF) ("Titan" or the "Company"), a medical device company focused on the design and development of a robotic surgical system for application in minimally invasive surgery ("MIS"), today announced that David McNally, President and CEO of the Company, will present a corporate overview at the 28<sup>th</sup> Annual Oppenheimer Healthcare Conference on Tuesday, March 20 at 1:00 p.m. EDT. The conference will be held March 20-21, 2018 at The Westin New York Grand Central in New York City.

A copy of the Company's presentation has been posted to the Investors section of its website. The presentation will not be webcast.

### About Titan Medical Inc.

Titan Medical Inc. is focused on research and development through to the planned commercialization of computer-assisted robotic surgical technologies for application in minimally invasive surgery. The Company is developing the SPORT Surgical System, a single-port robotic surgical system. The SPORT Surgical System is comprised of a surgeon-controlled patient cart that includes a 3D high-definition vision system and multi-articulating instruments for performing MIS procedures, and a surgeon workstation that provides an advanced ergonomic interface to the patient cart and a 3D endoscopic view inside the patient's body. Titan intends to pursue a broad set of surgical indications for the SPORT Surgical System, including general abdominal, gynecologic and urologic procedures.

For more information, please visit the Company's website at www.titanmedicalinc.com.

Contacts:

LHA Kim Sutton Golodetz (212) 838-3777 kgolodetz@lhai.com or Bruce Voss (310) 691-7100 bvoss@lhai.com

#### **Titan Medical Announces Director Resignation**

TORONTO, March 15, 2018 -- Titan Medical Inc. ("Titan" or the "Company")(TSX:TMD) (OTCQB:TITXF), a medical device company focused on the design, development and commercialization of a robotic surgical system for application in minimally invasive surgery ("MIS"), today announced that Martin Bernholtz has resigned from his positions as director and Chairman of the Company.

Martin Bernholtz was the longest serving member of Titan's board of directors, having joined in 2008. The Company thanks him for his past service and wishes him all the best in the future. Director John E. Barker will assume the position of chairman of the Company on an interim basis, effective immediately.

#### About Titan Medical Inc.

Titan Medical Inc. is focused on research and development through to the planned commercialization of computer-assisted robotic surgical technologies for application in minimally invasive surgery. The Company is developing the SPORT Surgical System, a single-port robotic surgical system. The SPORT Surgical System is comprised of a surgeon-controlled patient cart that includes a 3D high-definition vision system and multi-articulating instruments for performing MIS procedures, and a surgeon workstation that provides an advanced ergonomic interface to the patient cart and a 3D endoscopic view inside the patient's body. Titan intends to pursue a broad set of surgical indications for the SPORT Surgical System, including general abdominal, gynecologic and urologic procedures.

For more information, please visit the Company's website at www.titanmedicalinc.com.

#### **Forward-Looking Statements**

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# Titan Medical Granted U.S. Patent for Robotic Surgical Instruments

TORONTO, March 27, 2018 -- **Titan Medical Inc. ("Titan" or the "Company")**(TSX:TMD) (OTCQB:TITXF), a medical device company focused on the design, development and commercialization of a robotic surgical system for application in minimally invasive surgery ("MIS"), today announced it has been granted U.S. Patent No. 9,925,014, titled "Actuator and Drive for Manipulating a Tool." This patent is a continuation patent from previously issued U.S. Patent No. 9,629,688 and covers the Company's innovative single-port multi-articulated instrument design and, specifically, an orthogonally actuated instrument interface.

"We are pleased to report the granting of this key patent as it further strengthens Titan's intellectual property position in single-port robotic surgery. The design and function of the instrument interface provides a unique and potentially easier instrument loading mechanism, and also facilitates close instrument proximity to the surgical site at the point of insertion," commented David McNally, President and CEO of Titan Medical. "These attributes enable successful single-port surgery by providing quick instrument exchange through a small incision."

Corresponding patent applications are pending in various jurisdictions including China and Europe. With the issuance of this patent, the Company has 23 issued patents and 48 pending patent applications.

#### About Titan Medical Inc.

Titan Medical Inc. is focused on research and development through to the planned commercialization of computer-assisted robotic surgical technologies for application in minimally invasive surgery. The Company is developing the SPORT Surgical System, a single-port robotic surgical system. The SPORT Surgical System is comprised of a surgeon-controlled patient cart that includes a 3D high-definition vision system and multi-articulating instruments for performing MIS procedures, and a surgeon workstation that provides an advanced ergonomic interface to the patient cart and a 3D endoscopic view inside the patient's body. Titan intends to pursue a broad set of surgical indications for the SPORT Surgical System, including general abdominal, gynecologic and urologic procedures.

For more information, please visit the Company's website at www.titanmedicalinc.com.

#### **Forward-Looking Statements**

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# Titan Medical and Mimic Technologies Announce Collaboration and Successful Demonstration of First Simulation Modules

TORONTO and SEATTLE, March 29, 2018 -- Titan Medical Inc. ("Titan" or the "Company")(TSX:TMD) (OTCQB:TITXF), a medical device company focused on the design, development and commercialization of a robotic surgical system for application in minimally invasive surgery ("MIS"), and Mimic Technologies Inc., a market leader in robotic simulation, announce the collaboration and successful demonstration of a first set of simulation modules for use with Titan's SPORT Surgical System surgeon workstation. The successful demonstration of these simulation modules is the first step in the development of a comprehensive surgeon training curriculum for the SPORT Surgical System.

David McNally, President and CEO of Titan Medical, said, "We are thrilled to announce this strategic collaboration with Mimic Technologies, and with the successful demonstration of Mimic's first simulation modules on our surgeon workstation, deliver an important product development milestone right on schedule. Mimic, with its experience and leadership in simulation training for robotic surgery, provides us with a proven component of surgeon training in preparation for clinical adoption of our SPORT Surgical System. Simulation training has evolved with robotic surgery and it will continue to play a vital role in the successful implementation of new robotic programs. Surgeons and hospital administrators alike have indicated that simulation will remain a preferred training regimen in the future."

"We are leveraging Mimic's deep subject matter expertise and well-accepted simulation exercises in order to provide best-in-class simulation training at product launch. By doing so, we believe we can accelerate the learning curve, reduce training and operating costs, and mitigate potential risks associated with the implementation of our robotic technology," he added. "We enthusiastically look forward to completing the full simulation training curriculum for our SPORT Surgical System with the Mimic team of simulation experts."

Jeff Berkley, CEO and Founder of Mimic Technologies, said, "Mimic is delighted to partner with Titan to build revolutionary simulation systems that prepare surgeons for safe and efficient robotic surgery. Both Mimic and Titan believe that training is the cornerstone of a successful robotic surgery program. We applaud Titan's forward-looking approach to simulation training by its commitment to launch the SPORT Surgical System with a full suite of simulation software in place. By emphasizing simulation as part of a comprehensive training program, we hope to expedite the learning curve for surgeons looking to offer SPORT single port robotic surgery to their patients."

## About Mimic Technologies Inc.

Since 2002, Mimic has been developing simulation technologies that answer the needs of a changing robotic surgical marketplace. Mimic provides simulation solutions that help medical device companies build better robots and training simulators for surgeons. Mimic also provides strategic solutions for hospitals that maximize surgical quality, efficiency, and safety, while reducing risk and costs. Mimic's programmatic approach unifies training and testing across a hospital system to insure hospital stakeholders can make objective decisions on who is safe to enter the OR.

For more information, please visit the Company's website atwww.mimicsimulation.com.

## About Titan Medical Inc.

Titan Medical Inc. is focused on research and development through to the planned commercialization of computer-assisted robotic surgical technologies for application in minimally invasive surgery. The Company is developing the SPORT Surgical System, a single-port robotic surgical system. The SPORT Surgical System is comprised of a surgeon-controlled patient cart that includes a 3D high-definition vision system and multi-articulating instruments for performing MIS procedures, and a surgeon workstation that provides an advanced ergonomic interface to the patient cart and a 3D endoscopic view inside the patient's body. Titan intends to pursue a broad set of surgical indications for the SPORT Surgical System, including general abdominal, gynecologic and urologic procedures.

For more information, please visit the Company's website at<u>www.titanmedicalinc.com</u>.

## Forward-Looking Statements

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Contacts:

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## Item 1 Name and Address of Company

Titan Medical Inc. (the **"Company**" or **"Titan"**) 170 University Avenue Suite 1000 Toronto, Ontario M5H 3B3

### Item 2 Date of Material Change

March 6, 2018 and March 7, 2018.

## Item 3 News Release

The press releases attached as Schedule "A" and Schedule "B" were disseminated through GlobeNewswire on March 6, 2018 and March 7, 2018, respectively, with respect to the material changes.

#### Item 4 Summary of Material Change

On March 6, 2018, the Company filed a preliminary short-form prospectus (the "**Prospectus**") with securities regulators in Ontario, British Columbia and Alberta, with respect to an offering (the "**Offering**") of units ("**Unit**") comprised of one common share ("**Common Share**") and one common share purchase warrant ("**Warrant**").

On March 7, 2018, the Company announced that it had priced the Offering at CDN \$0.30 per Unit and that each Warrant would be exercisable for one Common Share at a price of CDN \$0.35 per Common Share, for a period of five years following the first closing of the Offering.

## Item 5 Full Description of Material Change

5.1 Full Description of Material Change

Please see the press releases attached as Schedule "A" and Schedule "B".

5.2 Disclosure for Restructuring Transactions

Not applicable.

#### Item 6 Reliance on subsection 7.1(2) of National Instrument 51-102

Not applicable.

## Item 7 Omitted Information

Not applicable.

# Item 8 Executive Officer

The following executive officer is knowledgeable about the material changes and may be contacted about this report:

Stephen Randall Chief Financial Officer (416) 548-7522 (ext. 152)

 Email:
 stephen@titanmedicalinc.com

 Website:
 www.titanmedicalinc.com

## Item 9 Date of Report

April 2, 2018.

Schedule "A"

[See Attached]



#### **Titan Medical Announces Marketed Offering of Units**

## NOT FOR DISTRIBUTION TO UNITED STATES NEWSWIRE SERVICES OR FOR DISSEMINATION IN THE UNITED STATES

TORONTO, March 06, 2018 -- Titan Medical Inc. ("Titan" or the "Company") (TSX:TMD) (OTCQB:TITXF), a medical device company focused on the design, development and commercialization of a robotic surgical system for application in minimally invasive surgery ("MIS"), announces today that it has filed and been receipted for a preliminary short form prospectus (the "Preliminary Prospectus") with securities regulators in the provinces of Ontario, British Columbia and Alberta in connection with a proposed marketed offering of units (the "Units") of the Company (the "Offering"). Each Unit will be comprised of one common share of the Company and one common share purchase warrant (a "Warrant"). The Offering will be undertaken on a "best efforts" agency basis.

The number of Units to be distributed, the price of each Unit, the minimum and maximum size of the Offering, and the exercise price and term of each Warrant will be determined by negotiation between the Company and the Agent (as defined herein) in the context of the market with final terms to be determined at the time of pricing. Bloom Burton Securities Inc. (the "**Agent**") is the sole agent for the Offering. The Units may also be offered for sale in the United States through United States registered broker-dealers on a private placement basis pursuant to an exemption from the registration requirements of the United States Securities Act of 1933, as amended (the "**U.S. Securities Act**") and applicable state laws.

The Offering is subject to a number of customary conditions, including, without limitation, receipt of all regulatory and stock exchange approvals. The net proceeds of the Offering will be used to fund continued development work in connection with the Company's SPORT Surgical System, as well as for working capital and other general corporate purposes. Further details are disclosed in the Preliminary Prospectus, available at www.sedar.com.

#### About Titan

Titan is a Canadian public company focused on research and development through to the planned commercialization of computer-assisted robotic surgical technologies for application in minimally invasive surgery. The Company is currently developing the SPORT Surgical System, a single-port robotic surgical system. The SPORT Surgical System is comprised of a surgeon-controlled patient cart that includes a 3D high definition vision system and multi-articulating instruments for performing MIS procedures, and a surgeon workstation that provides the surgeon with an advanced ergonomic interface to the patient cart and a 3D endoscopic view inside the patient's body during MIS procedures. With the SPORT Surgical System, the Company aims to pursue a broad set of surgical indications, including general abdominal, gynecologic and urologic procedures.

For more information, please visit the Company's website at www.titanmedicalinc.com.

#### **Forward-Looking Statements**

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# **Contact Information**

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or

Bruce Voss (310) 691-7100 bvoss@lhai.com Schedule "B"

[See Attached]

## Titan Medical Announces Pricing of Marketed Offering of Units

TORONTO, March 07, 2018 -- Titan Medical Inc. ("Titan" or the "Company") (TSX:TMD) (OTCQB:TITXF), a medical device company focused on the design, development and commercialization of a robotic surgical system for application in minimally invasive surgery ("MIS"), is pleased to announce today that it has priced its previously announced marketed offering (the "Offering") of units of the Company (the "Units"). Pursuant to the Offering, Titan will issue Units at a price of CDN \$0.30 per Unit. Each Unit is comprised of one common share of the Company (a "Common Share") and one Common Share purchase warrant of the Company (a "Warrant"). Each Warrant is exercisable for one Common Share at a price of CDN \$0.35, for a period of 5 years following the closing of the Offering.

The Offering will be undertaken on a best efforts basis pursuant to the terms and conditions of an agency agreement to be entered into between the Company and Bloom Burton Securities Inc. (the "Agent"). In connection with the Offering, the Agent will be paid a cash commission equal to 7.0% of the gross proceeds of the Offering and it will be issued that number of non-transferable broker warrants exercisable for Common Shares equal to 7.0% of the number of Units sold in the Offering (in each case excluding any Units sold to certain excluded subscribers).

A preliminary short form prospectus in respect of the Offering dated March 6, 2018 (the **'Preliminary Prospectus**') has been filed in each of the provinces of Ontario, British Columbia and Alberta pursuant to National Instrument 44-101 - *Short Form Prospectus Distributions*. In addition, the Units may also be offered for sale in the United States, by or through United States registered broker-dealers appointed by the Agent as sub-agents, and in certain offshore jurisdictions, in each case under available exemptions from the prospectus and registration requirements of applicable securities laws. The Company intends to file an amended and restated preliminary short form prospectus (the "Amended and Restated Preliminary Prospectus") with the securities regulatory authorities in each of the provinces of Ontario, British Columbia and Alberta, to provide additional details concerning the Offering, including pricing information.

The net proceeds of the Offering (the "**Net Proceeds**") will be used to fund continued development work in connection with the Company's SPORT Surgical System, as well as for working capital and other general corporate purposes. Please see "Use of Proceeds" in the Preliminary Prospectus, which is available under the Company's profile at www.sedar.com, for further details of the use of Net Proceeds.

The Common Shares are listed on the Toronto Stock Exchange (the **'TSX''**) under the symbol **''TMD''**. An application will be made to list the Common Shares issuable under the Offering for trading on the TSX. Listing will be subject to the Company fulfilling all of the requirements of the TSX.

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Titan is a Canadian public company focused on the design and development of a robotic surgical system for application in minimally invasive surgery. The Company's SPORT Surgical System, currently under development, includes a surgeon-controlled robotic platform that includes a 3D high-definition vision system and instruments for performing MIS procedures. The surgical system also includes a surgeon workstation that provides the surgeon with an advanced ergonomic interface to the robotic platform for controlling the instruments and provides a 3D high-definition endoscopic view of inside a patient's body. The SPORT Surgical System is designed to enable surgeons to perform a broad set of surgical procedures for general abdominal, gynecological and urologic indications. For more information, visit the Company's website at www.titanmedicalinc.com.

### Forward-Looking Statements

This press release contains "forward-looking statements" which reflect the current expectations of management of the Company. Such statements include, but are not limited to, statements regarding receipt of applicable regulatory approvals and the timing thereof, the filing of the Amended and Restated Preliminary Prospectus, the listing of the Common Shares on the TSX and the proposed use of the Net Proceeds. Wherever possible, words such as "may", "would", "could", "will", "anticipate", "believe", "plan", "expect", "intend", "estimate", "potential for" and similar expressions have been used to identify these forward-looking statements. These statements reflect management's current beliefs with respect to future events and are based on information currently available to management. Forward-looking statements involve significant risks, uncertainties and assumptions. Many factors could cause the Company's actual results, performance or achievements to be materially different from any future results, performance or achievements that may be expressed or implied by such forward-looking statements, including, without limitation, those listed in the "Risk Factors" section of the Company's Annual Information Form dated March 31, 2017 (which may be viewed at <u>www.sedar.com</u>). Should one or more of these risks or uncertainties materialize, or should assumptions underlying the forward looking statements prove incorrect, actual results, performance or achievements may vary materially from those expressed or implied by the forward-looking statements contained in this news release. These factors should be considered carefully and prospective investors should not place undue reliance on the forward-looking statements. Although the forward-looking statements contained in the news release are based upon what management currently believes to be reasonable assumptions, the Company cannot assure prospective investors that actual results, performance or achievements will be consistent with these forward-looking statements.

## **U.S. Securities Law Caution**

The securities described herein have not been, and will not be, registered under the United States Securities Act of 1933, as amended (the **'U.S. Securities Act**"), or any state securities laws, and accordingly, may not be offered or sold to, or for the account or benefit of, persons in the United States or "U.S. persons", as such term is defined in Regulation S promulgated under the U.S. Securities Act ("**U.S. Persons**"), except in compliance with the registration requirements of the U.S. Securities Act and applicable state securities requirements or pursuant to exemptions therefrom. This press release does not constitute an offer to sell or a solicitation of an offer to buy any of the Company's securities to, or for the account or benefit of, persons.

CONTACT INFORMATION

LHA Investor Relations Kim Sutton Golodetz (212) 838-3777 kgolodetz@lhai.com

or

Bruce Voss (310) 691-7100 bvoss@lhai.com

#### AGENCY AGREEMENT

April 3, 2018

Titan Medical Inc. 170 University Avenue, Suite 1000 Toronto, Ontario M5H 3B3

#### Attention: David J. McNally, President and Chief Executive Officer

Dear Sir:

Bloom Burton Securities Inc. (the "Agent") understands that Titan Medical Inc. (the "Corporation") proposes to issue and sell a minimum of 33,333,333 units of the Corporation (the "Offered Units") and up to a maximum of 50,000,000 Offered Units at a price of \$0.30 per Offered Unit (the 'Offering Price") for aggregate gross proceeds of a minimum of \$10,000,000 (the "Minimum Offering") up to a maximum of \$15,000,000 (the "Maximum Offering"). Each Offered Unit shall consist of (i) one Common Share (as defined herein) (a "Unit Share") and (ii) one Common Share purchase warrant (a "Warrant"). Each Warrant shall be issued pursuant to and subject to the terms of the Warrant Indenture (as defined herein) Each Warrant shall entitle the holder thereof to purchase one Common Share (a "Warrant Share") at an exercise price of \$0.35 per Warrant Share, subject to adjustment, at any time until 5:00 p.m. (Toronto time) on the date that is five years after the Initial Closing Date (as defined herein).

In addition, the Corporation hereby grants to the Agent an option (the "Agent's Option") exercisable in whole or in part and at any time and from time to time on or before the Initial Closing Date or for a period of 30 days following the Initial Closing Date, to arrange for the purchase from the Corporation, on a best efforts basis and subject to the terms and conditions set out herein, of up to that number of additional units of the Corporation with the same terms as the Offered Units (the "Additional Offered Units") and/or common share purchase warrants of the Corporation with the same terms as the Warrants") equal to 15% of the Offered Units issued on the Closing Date (as defined herein) to cover the Agent's "over-allocation position" (as that term is defined Units at the Offering Price, (ii) Additional Warrants at a price of \$0.17 per Additional Warrant, or (iii) a combination thereof, so long as the aggregate number of Additional Units and Additional Warrants does not exceed 15% of the number of Offered Units issued on the Initial Closing Date. Unless otherwise specifically referenced or unless the context otherwise requires, all references to "**Warrants**" herein shall include the Additional Warrants. If the Agent elects to exercise the Agent's Option, the Agent shall notify the Corporation in writing not later than 30 days after the Initial Closing Date, which notice shall specify the number of Additional Offered Units and/or Additional Warrants to be sold under the Offering (as defined herein) pursuant to the exercise of the Agent's Option and the date upon which such Additional Offered Units and/or Additional Warrants to be sold under the Offering (as defined herein) pursuant to the exercise of the Agent's Option and the date upon which such Additional Offered Units and/or Additional Warrants are to be purchased (the "**Agent's Option Closing Date**". Such date may be the same as the Closing Date but otherwise not earlier than two Business issued in connection with the exercise of the Agents' Option is he

The Corporation wishes to appoint the Agent to act as its sole and exclusive agent, and to effect the sale of the Offered Units on a best efforts basis. The Agent shall be entitled to appoint a soliciting dealer group consisting of other registered dealers acceptable to the Corporation (each, a "Selling Firm") for the purpose of arranging for purchases of the Offered Units.

It is further understood and agreed that the Corporation shall be entitled to offer and sell Offered Units pursuant to the Offering to certain subscribers on a president's list or other excluded subscribers and settling directly with the Corporation (the "**President's List Subscribers**"); provided, however, that (i) the Agent and any Selling Firm shall not be required to conduct a suitability review in respect of sales by the Corporation of Offered Units to any President's List Subscriber; (ii) the Agent and any Selling Firm shall not be obligated, and may, in their sole discretion, refuse to process any subscription for Offered Units from any President's List Subscriber; and (iii) the Corporation shall indemnify and save harmless the Agent, any Selling Firm and any Indemnified Party (as defined herein) for and against all losses relating to any sales of Offered Units by the Corporation to any President's List Subscriber.

In consideration of the Agent's services hereunder, the Corporation agrees to pay to the Agent on each Closing Date a fee (the "Agency Fee") equal to 7.0% of the gross proceeds realized by the Corporation in respect of the sale of the Offered Units (including for greater certainty, any Additional Offered Units and/or Additional Warrants sold pursuant to the exercise of the Agent's Option but excluding any Offered Units sold to any President's List Subscriber) on such Closing Date. Proceeds raised through the sale of Offered Units to President's List Subscribers will not be subject to any commission and will in no way make up the Agency Fee. As additional consideration for its services performed under this Agreement (as defined herein), the Corporation shall issue to the Agent, on each Closing Date (in such name or names as the Agent may direct in writing) compensation warrants (the "Compensation Warrants") exercisable to acquire that number of Common Shares (the 'Compensation Shares'') as is equal to 7.0% of the Offered Units sold to any President's List Subscriber) on such Closing Date (in such name or names as the Agent may direct in writing) compensation warrants (the "Compensation Warrants") exercisable to acquire that number of Common Shares (the 'Compensation Shares'') as is equal to 7.0% of the Offered Units sold to any President's List Subscriber) on such Closing Date. Each Compensation Warrant sold pursuant to the exercise of the Agent's Option but excluding any Offered Units sold to any President's List Subscriber) on such Closing Date. Each Compensation Warrant shall be exercisable, in whole or in part, at an exercise price per Compensation Share equal to the Offering Price at any time before 5:00 p.m. (Toronto time) on the date that is 24 months following the Initial Closing Date.

The obligation of the Corporation to pay the Agency Fee and to issue the Compensation Warrants shall arise at the Closing Time (as defined herein) against payment for the Offered Units (and, for greater certainty, with respect to the sale of any Additional Offered Units and/or Additional Warrants on the exercise of the Agent's Option, at the Agent's Option Closing Time against payment for the Additional Offered Units and/or Additional Warrants, except the obligation of the Corporation to issue Compensation Warrants in connection with the exercise of the Agent's Option shall only arise in respect of the sale of Additional Offered Units), and the Agency Fee and the Compensation Warrants shall be fully earned by the Agent at such time.

The completion of the Offering may occur in one or more separate closings on one or more dates (each, a 'Closing Date") as the Corporation and the Agent may agree. Provided that the Minimum Offering is subscribed for, it is expected that the Initial Closing Date will occur on or about April 10, 2018, or such other date as the Corporation and the Agent may agree.

If subscriptions for the Minimum Offering have not been received within 10 days following the date of the Final Receipt (as defined herein), the Offering will not continue and the subscription proceeds will be returned to subscribers, without interest or deduction. In any event, the total period of the distribution will not end more than 30 days from the date of the Final Receipt. Should a Closing occur in respect of the Minimum Offering, one or more additional Closings, if necessary, may occur until the earlier of the Maximum Offering being subscribed and the expiry of the 30-day period.

It is understood that the Offered Units and/or Additional Warrants will be offered to Purchasers (as defined herein) resident in: (i) each of the provinces of British Columbia, Alberta and Ontario (collectively, the "**Canadian Selling Jurisdictions**"); and (ii) jurisdictions other than the Canadian Selling Jurisdictions as may mutually be agreed to by the Corporation and the Agent, including the United States in accordance with Schedule ""D" hereto, (collectively with the Canadian Selling Jurisdictions, the "**Selling Jurisdictions**"), on a private placement basis, provided that the Corporation is not required to file a prospectus, registration statement or other disclosure document or become subject to continuing obligations in such other jurisdictions, in each case in accordance with the provisions of this Agreement. With respect to the offer or sale of any Offered Units in the United States or to, or for the account or benefit of, U.S. Persons (as defined herein), the parties to this Agreement acknowledge and agree that the Agent may appoint duly registered U.S. broker-dealers (each, a "U.S. Selling Group Member") to act as sub-agents to conduct offers and sales of the Offered Securities in the United States or to, or for the account or benefit of, persons in the United States or U.S. Persons.

#### DEFINITIONS

Unless expressly provided otherwise, where used in this Agreement, the following terms shall have the following meanings:

"Additional Offered Units" has the meaning ascribed thereto in the second paragraph of this Agreement;

"Additional Warrants" has the meaning ascribed thereto in the second paragraph of this Agreement;

"affiliate", "associate", "material change", "material fact" and "misrepresentation" shall have the respective meanings ascribed thereto under Applicable Securities Laws of the Canadian Selling Jurisdictions;

"Agency Fee" has the meaning ascribed thereto in the fifth paragraph of this Agreement;

"Agent" has the meaning ascribed thereto in the first paragraph of this Agreement;

"Agent's Option" has the meaning ascribed thereto in the second paragraph of this Agreement;

"Agent's Option Closing Date" has the meaning ascribed thereto in the second paragraph of this Agreement;

"Agent's Option Closing Time" means 8:00 a.m. (Toronto time) on the Agent's Option Closing Date or such other time on the Agent's Option Closing Date as the Corporation and the Agent may agree;

"Agreement" means the agreement resulting from the acceptance by the Corporation of the offer made hereby;

"Applicable IP Laws" means, with respect to a specific Intellectual Property, all applicable federal, provincial, state and local laws and regulations applicable to that Intellectual Property in the countries where rights in such Intellectual Property arise, the countries including Canada, the United States, the European Union and the jurisdictions in which the Corporation has registered Intellectual Property;

"Applicable Laws" means all applicable federal, provincial, state and local laws and regulations of authorities having jurisdiction over the Corporation or the Agent, as applicable;

"Applicable Securities Laws" means, collectively, the applicable securities laws of the Canadian Selling Jurisdictions, the regulations, rules, rulings and orders made thereunder, the applicable published policy statements issued by the applicable securities commissions thereunder, the rules and policies of the TSX and the OTCQB and the securities legislation and published policies of each Selling Jurisdiction;

"Applied for Corporation IP" means all Corporation IP that is the subject of an application with a national intellectual property office (including the CIPO and the USPTO);

"Business Day" means a day which is not a Saturday, Sunday or statutory or civic holiday in the City of Toronto, Ontario;

"Canadian Securities Regulators" means, collectively, the applicable securities commission or securities regulatory authority in each of the Canadian Selling Jurisdictions;

"Canadian Selling Jurisdictions" has the meaning ascribed thereto in the ninth paragraph of this Agreement;

"CDS" means CDS Clearing and Depository Services Inc.;

"CIPO" means the Canadian Intellectual Property Office;

"Claims" has the meaning ascribed thereto in Section 12;

"Closing" means the Initial Closing or any Subsequent Closing, as the case may be;

"Closing Date" has the meaning ascribed thereto in the seventh paragraph of this Agreement;

"Closing Time" means 8:00 a.m. (Toronto time) on the Closing Date or such other time on the Closing Date as the Corporation and the Agent may agree;

"Common Shares" means the common shares in the capital of the Corporation, which the Corporation is authorized to issue, as constituted on the date hereof;

"comparables" has the meaning ascribed thereto in NI 41-101;

"Compensation Warrants" has the meaning ascribed thereto in the fifth paragraph of this Agreement;

"Compensation Shares" has the meaning ascribed thereto in the fifth paragraph of this Agreement;

"Compensation Warrant Certificates" means the certificates representing the Compensation Warrants;

"Corporation" has the meaning ascribed thereto in the first paragraph of this Agreement;

"Corporation's Auditors" means BDO Canada LLP, Chartered Accountants;

"Corporation IP" means the Intellectual Property identified in Schedule "B" and Schedule "C" to this Agreement;

"Disclosure Record" means all information contained in any press releases, material change reports, financial statements, prospectuses, annual and quarterly reports or other document of the Corporation which has been publicly filed on SEDAR by, or on behalf of, the Corporation pursuant to Applicable Securities Laws of the Canadian Selling Jurisdictions;

- 5 -

"Distribution" means "distribution" or "distribution to the public" as those terms are defined under Applicable Securities Laws of the Canadian Selling Jurisdictions;

"Documents Incorporated by Reference" means all financial statements, management's discussion and analysis, management information circulars, annual information forms, material change reports or other documents issued by the Corporation, whether before or after the date of this Agreement, that are required by NI 44-101 to be incorporated by reference into the Prospectus or any Prospectus Amendment;

"Due Diligence Session" has the meaning ascribed thereto in subsection 6(b);

"Eligible Issuer" means an issuer that meets the criteria and has complied with the requirements of NI 44-101 so as to allow it to offer its securities using a short form prospectus;

"Engagement Letter" means the engagement letter dated March 2, 2018 between the Corporation and the Agent relating to the Offering;

"Environmental Laws" has the meaning ascribed thereto in subsection 7(jj);

"FDA" means the U.S. Food and Drug Administration of the U.S. Department of Health & Human Services;

"Final Prospectus" means the (final) short form prospectus of the Corporation, including all of the Documents Incorporated by Reference, to be dated on or about the date hereof relating to the Distribution of the Offered Units and for which a receipt will have been issued by the Ontario Securities Commission, as principal regulator, the British Columbia Securities Commission and the Alberta Securities Commission pursuant to the Passport System;

"Final Receipt" means a receipt or deemed receipt for the Final Prospectus issued by the Securities Regulators;

"Financial Statements" means the audited financial statements of the Corporation as at and for its fiscal years ended December 31, 2017 and 2016;

"Indemnified Party" or "Indemnified Parties" has the meaning ascribed thereto in Section 12;

"Initial Closing" means the completion of the initial issue and sale by the Corporation of the Offered Units and Compensation Warrants pursuant to this Agreement;

"Initial Closing Date" means April 10, 2018 or such other date as may be agreed upon between the Corporation and the Agent for the Initial Closing that is not later than 30 days after the Final Receipt is issued;

"Institutional Accredited Investor" means an institutional "accredited investor" within the meaning of Rule 501(a)(1), (2), (3) or (7) of Regulation D;

"Intellectual Property" means all copyrights, patents, patent rights, industrial designs, know-how (including trade secrets and other unpatented or unpatentable proprietary or confidential information, systems or procedures);

"knowledge" means, as it pertains to the Corporation, the actual knowledge, after due inquiry, of the President and Chief Executive Officer, the Chief Financial Officer and, in the case of matters relating to Corporation IP and Licensed IP, the employee of the Corporation that is the most responsible for directing such matters;

"Leased Premises" has the meaning ascribed thereto in subsection 7(mm);

"Licensed IP" means the Intellectual Property owned by any person other than the Corporation and to which the Corporation has a license which has not expired or been terminated;

"marketing materials" has the meaning ascribed thereto in NI 41-101;

"Material Adverse Effect" means any change, event, violation, inaccuracy, circumstance or effect that is materially adverse to the business, assets (including intangible assets), capitalization, financial condition or results of operations of the Corporation, whether or not arising in the ordinary course of business;

"Material Agreement" means any "material contract" required to be filed on SEDAR by the Corporation pursuant to NI 51-102;

"Material Permits" has the meaning ascribed thereto in subsection 7(rr);

"Maximum Offering" has the meaning ascribed thereto in the first paragraph of this Agreement;

"MI 11-102" means Multilateral Instrument 11-102 - Passport System;

"Minimum Offering" has the meaning ascribed thereto in the first paragraph of this Agreement;

"NI 41-101" means National Instrument 41-101 - General Prospectus Requirements;

"NI 44-101" means National Instrument 44-101 - Short Form Prospectus Distributions;

"NI 51-102" means National Instrument 51-102 - Continuous Disclosure Obligations;

"NP 11-202" means National Policy 11-202 - Process for Prospectus Reviews in Multiple Jurisdictions,

"Notice" has the meaning ascribed thereto in Section 17;

"Offered Units" has the meaning ascribed thereto in the first paragraph of this Agreement;

"Offering" has the meaning ascribed thereto in the second paragraph of this Agreement;

"Offering Documents" has the meaning ascribed to such term in subsection 5(a)(iii);

"Offering Price" has the meaning ascribed thereto in the first paragraph of this Agreement;

"Passport System" means the system and process for prospectus reviews provided for under MI 11-102 and NP 11-202;

"person" shall be interpreted broadly and shall include any individual, corporation, partnership, joint venture, association, trust or other legal entity;

"Preliminary Prospectus" means the preliminary short form prospectus of the Corporation, including all of the Documents Incorporated by Reference, dated March 6, 2018 relating to the Distribution of the Offered Units and for which a receipt has been issued by the Ontario Securities Commission, as principal regulator, the British Columbia Securities Commission and the Alberta Securities Commission pursuant to the Passport System;

"President's List Subscribers" has the meaning ascribed thereto in the fourth paragraph of this Agreement;

"Prospectus" means, as the context requires, the Preliminary Prospectus and/or the Final Prospectus, including any Prospectus Amendment;

"Prospectus Amendment" means any amendment or supplement to the Prospectus;

"Purchasers" means any persons who acquire Offered Units and/or Additional Warrants at the Closing Time or the Agent's Option Closing Time, as applicable;

"Registered Corporation IP" means all Corporation IP that is the subject of a registration with a national intellectual property office (including the CIPO and the USPTO);

"Regulation D" means Regulation D promulgated under the U.S. Securities Act;

"Regulation S" means Regulation S promulgated under the U.S. Securities Act;

"Regulatory Authority" means the statutory or governmental bodies authorized under Applicable Laws to protect and promote public health through regulation and supervision of therapeutic drug candidates intended for use in humans, including the FDA and Health Canada and any other regulatory or governmental agency having jurisdiction over the Corporation or its activities;

"Securities Regulators" means the applicable securities regulatory authorities in the Selling Jurisdictions, including the Canadian Securities Regulators and the TSX;

"SEDAR" means the system for electronic document analysis and retrieval operated by the Canadian Securities Administrators;

"Selling Firm" has the meaning ascribed thereto in the third paragraph of this Agreement;

"Selling Jurisdictions" has the meaning ascribed thereto in the ninth paragraph of this Agreement;

"SR&ED" has the meaning ascribed thereto in subsection 7(k);

"Standard Listing Conditions" means the standard post-Closing conditions imposed by the TSX in the TSX Letter, which shall, for the avoidance of doubt, exclude any requirement for shareholder approval;

"standard term sheet" has the meaning ascribed thereto in NI 41-101;

"Subsequent Closing" has the meaning set out in Section 8;

"Subsequent Closing Date" means such date as may be agreed upon between the Corporation and the Agent for the Subsequent Closing but in any event shall be not later than the date that is 30 days after the date of the Final Receipt;

"Taxes" has the meaning ascribed thereto in subsection 7(j);

"template version" has the meaning ascribed thereto in NI 41-101;

"Transfer Agent" means Computershare Investor Services Inc.;

"TSX" means the Toronto Stock Exchange;

"TSX Letter" means the conditional approval letter dated March 29, 2018 issued by the TSX in respect of the Offering;

"TSX Manual" means the TSX Company Manual;

"Unit Share" has the meaning ascribed thereto in the first paragraph of this Agreement;

"United States" or "U.S." means the United States of America, its territories and possessions, any state of the United States, and the District of Columbia;

"USPTO" means the United States Patent and Trademark Office;

"U.S. Exchange Act" means the United States Securities and Exchange Act of 1934, as amended;

"U.S. Memorandum" has the meaning ascribed thereto in subsection 4(a)(iii);

"U.S. Person" means a "U.S. person" as such term is defined in Regulation S;

"U.S. Securities Act" means the United States Securities Act of 1933, as amended;

"U.S. Selling Group Member" has the meaning ascribed thereto in the ninth paragraph of this Agreement;

"Warrant" has the meaning ascribed thereto in the first paragraph of this Agreement;

"Warrant Indenture" means the warrant indenture between the Corporation and Computershare Trust Company of Canada, in its capacity as warrant agent, governing the Warrants; and

"Warrant Share" has the meaning ascribed thereto in the first paragraph of this Agreement.

The following are the schedules attached to this Agreement, which schedules are deemed to be a part hereof and are hereby incorporated by reference herein:

| Schedule "A" | - | Convertible Securities                        |
|--------------|---|-----------------------------------------------|
| Schedule "B" | - | Corporation IP                                |
| Schedule "C" | - | Licensor Contracts                            |
| Schedule "D" | - | Compliance with United States Securities Laws |

## TERMS AND CONDITIONS

## 1. Nature of the Transaction

Based upon the foregoing and subject to the terms and conditions set out below, the Corporation hereby appoints the Agent to act as its sole and exclusive agent, and the Agent hereby accepts such appointment, to effect the sale of the Offered Units for an aggregate purchase price of a minimum amount equal to the Minimum Offering up to a maximum amount equal to the Maximum Offering, on a best efforts basis to persons resident in the Selling Jurisdictions. The Agent agrees to use its best efforts to sell the Offered Units, but it is hereby understood and agreed that the Agent shall act as agent only and is under no obligation to purchase any of the Offered Units and/or Additional Warrants, although the Agent may subscribe for the Offered Units and/or Additional Warrants if it so desires. The Offering will be subject to subscriptions being received for the Minimum Offering. All funds received by the Agent will be held in trust until the Minimum Offering has been attained. Notwithstanding any other term of this Agreement, all subscription funds received by the Agent will be returned to the Purchasers if the Minimum Offering is not attained by the Closing Time.

During the Distribution of the Offered Units and/or Additional Warrants, the Corporation and Agent shall approve in writing (prior to such time that marketing materials are provided to potential investors) any marketing materials reasonably requested to be provided by the Agent to any potential investor of Offered Units and/or Additional Warrants, such marketing materials to comply with Applicable Securities Laws of the Canadian Selling Jurisdictions. The Agent shall provide a copy of any marketing materials used in connection with the Offering, to the Corporation in accordance with this Section 1. The Corporation shall file a template version and any revised template version of such marketing materials with the Canadian Securities Regulators as soon as reasonably practicable after such marketing materials are so approved in writing by the Corporation and the Agent, and in any event on or before the day the marketing materials are first provided to any potential investor of Offered Units and/or Additional Warrants, and such filing shall constitute the Agent's authority to use such marketing materials in connection with the Offering. Any comparables shall be redacted from the template version in accordance with NI 44-101 prior to filing such template version with the Canadian Securities Regulators and a complete template version containing such comparables and any disclosure relating to the comparables, if any, shall be delivered to the Canadian Securities Regulators by the Corporation.

The Corporation and the Agent, on a several basis, covenant and agree:

- (a) not to provide any potential investor of Offered Units and/or Additional Warrants with any marketing materials unless a template version of such marketing materials has been filed by the Corporation with the Canadian Securities Regulators on or before the day such marketing materials are first provided to any potential investor of Offered Units and/or Additional Warrants;
- (b) not to provide any potential investor with any materials or information in relation to the Distribution of the Offered Units and/or Additional Warrants or the Corporation other than: (i) such marketing materials that have been approved and filed in accordance with this Section 1; (ii) the Prospectus and any Prospectus Amendments; and (iii) any standard term sheets approved in writing by the Corporation and the Agent; and
- (c) that any marketing materials approved and filed in accordance with this Section 1 and any standard term sheets approved in writing by the Corporation and the Agent shall only be provided to potential investors in the Selling Jurisdictions where the provision of such marketing materials or standard term sheets does not contravene Applicable Securities Laws.

## 2. Final Prospectus

The Corporation shall, as soon as possible following the execution of this Agreement, use its commercially reasonable efforts to: (i) prepare and file the Final Prospectus in each of the Canadian Selling Jurisdictions; (ii) obtain, pursuant to the Passport System, the Final Receipt; and (iii) take all other steps and proceedings that may be necessary to be taken by the Corporation in order to: (A) qualify the Offered Units and Additional Warrants for Distribution in each of the Canadian Selling Jurisdictions under Applicable Securities Laws; and (B) qualify the grant of the Compensation Warrants for Distribution in each of the Canadian Selling Jurisdictions under Applicable Securities Laws, on or before 5:00 p.m. (Toronto time) on the date hereof or such later date as the Corporation and the Agent may agree.

Until the date on which the Distribution of the Offered Units and/or Additional Warrants is completed, the Corporation will promptly take, or cause to be taken, all additional steps and proceedings that may from time to time be required or desirable under Applicable Securities Laws of the Canadian Selling Jurisdictions to continue to qualify the Distribution of the Offered Units, Additional Warrants and the Compensation Warrants, or, in the event that the Offered Units, Additional Warrants or the Compensation Warrants have, for any reason, ceased to so qualify, to so qualify again the Offered Units, Additional Warrants for Distribution in the Canadian Selling Jurisdictions.

## 3. Covenants and Representations of the Agent

- (a) The Agent has complied and will comply, and shall require any other Selling Firm with which the Agent has a contractual relationship in respect of the Distribution of the Offered Units and/or Additional Warrants (including, for the avoidance of doubt, the U.S Selling Group Members) to comply, with Applicable Securities Laws in connection with the Distribution of the Offered Units and/or Additional Warrants, including the U.S selling restrictions imposed by the laws of the United States and set forth in Schedule "D" to this Agreement, shall ensure that each Selling Firm agrees to comply with the covenants and obligations given by the Agent herein, to the extent applicable, and shall offer the Offered Units and/or Additional Warrants for sale to the public in the Selling Jurisdictions directly and through Selling Firms upon the terms and conditions set out in the Prospectus and this Agreement. The Agent agrees to obtain such an agreement of each Selling Firm. The Agent has offered and will offer, and shall require any Selling Firm to offer, for sale to the public and sell the Offered Units and/or Additional Warrants only in those jurisdictions where they may be lawfully offered for sale or sold.
- (b) The Agent shall, and shall require any Selling Firm to agree to, distribute the Offered Units and/or Additional Warrants in a manner which complies with and observes all Applicable Laws in each jurisdiction into and from which they may offer to sell Offered Units and/or Additional Warrants or distribute the Prospectus or any Prospectus Amendment in connection with the Distribution of the Offered Units and/or Additional Warrants and will not, directly or indirectly, offer, sell or deliver any Offered Units and/or Additional Warrants or deliver the Prospectus or any Prospectus Amendment to any person in any jurisdiction other than in the Canadian Selling Jurisdictions except in manner which will not require the Corporation to comply with the registration, prospectus, filing or other similar requirements under the Applicable Laws relating to securities of such other jurisdictions.
- (c) For the purposes of this Section 3, the Agent shall be entitled to assume that the Offered Units and Additional Warrants are qualified for Distribution in any Canadian Selling Jurisdiction where a receipt for the Final Prospectus shall have been obtained from the Ontario Securities Commission, as principal regulator, the British Columbia Securities Commission and the Alberta Securities Commission pursuant to the Passport System following the filing of the Final Prospectus.

- (d) The Agent shall use all reasonable efforts to complete the Distribution of the Offered Units and/or Additional Warrants pursuant to the Prospectus as early as practicable and the Agent shall advise the Corporation in writing when, in the opinion of the Agent, the Agent has completed the Distribution of the Offered Units and/or Additional Warrants and within 25 days of the Closing Date provide a breakdown of the number of Offered Units and/or Additional Warrants distributed and proceeds received in each of the Canadian Selling Jurisdictions where such breakdown is required for the purpose of calculating fees payable to the Canadian Securities Regulators.
- (e) The Agent shall deliver a copy of the Prospectus and any Prospectus Amendment to each Purchaser.
- (f) The Agent represents and warrants to the Corporation and acknowledges that the Corporation is relying upon such representations and warranties in entering into this Agreement that:
  - (i) it is a valid and subsisting corporation, duly incorporated and in good standing under the laws of the jurisdiction in which it was incorporated;
  - (ii) it holds all licenses and permits that are required for carrying on its business in the manner in which such business has been carried on;
  - (iii) it has good and sufficient right and authority to enter into this Agreement and complete the transactions contemplated under this Agreement on the terms and conditions set forth herein;
  - (iv) all information reasonably requested by the Agent and its counsel in connection with the due diligence investigations of the Agent will be treated by the Agent and its counsel as confidential and will only be used in connection with the Offering; and
  - (v) it is an appropriately registered investment dealer under provincial securities laws, rules and regulations of the Canadian Selling Jurisdictions so as to permit it to lawfully fulfil its obligations hereunder.
- (g) The representations and warranties of the Agent contained in this Agreement shall be true at the Closing Time and at the Agent's Option Closing Time and they shall survive the completion of the transactions contemplated under this Agreement until the third anniversary of the Closing Date.

The Corporation understands and agrees that the Agent may arrange for Purchasers in jurisdictions other than Canada and the United States, on a private placement basis and provided that the purchase of such Offered Units and/or Additional Warrants does not contravene the Applicable Securities Laws of the jurisdiction where the Purchaser is resident and provided that such sale does not trigger: (i) any obligation to prepare and file a prospectus, registration statement or similar disclosure document; or (ii) any registration or other obligation on the part of the Corporation including, but not limited to, any continuing obligation in that jurisdiction.

### 4. Deliveries

(a) The Corporation shall deliver, or cause to be delivered to the Agent, without charge:

- (i) on the date hereof, a copy of the Preliminary Prospectus and the Final Prospectus, each signed and certified as required by Applicable Securities Laws;
- (ii) contemporaneously with the filing of the Final Prospectus, a copy of any other document required to be filed or that is otherwise delivered by the Corporation in respect of the Offering under the laws of each of the Selling Jurisdictions in compliance with Applicable Securities Laws, to the extent not available on SEDAR;
- the private placement memorandum incorporating the Prospectus prepared for use in connection with the sale of the Offered Units and/or Additional Warrants in the United States or to, or for the account or benefit of, U.S. Persons (the "U.S. Memorandum"), and, forthwith after preparation, any amendment to the U.S. Memorandum;
- (iv) prior to the filing of the Final Prospectus, copies of correspondence indicating that the application for the listing and posting for trading on the TSX of the Unit Shares, the Warrant Shares and the Compensation Shares have been approved for listing subject only to satisfaction by the Corporation of the Standard Listing Conditions;
- (v) contemporaneously with, or prior to, the filing of the Final Prospectus, a "long form" comfort letter dated the date of the Final Prospectus, in form and substance satisfactory to the Agent, addressed to the Agent from the Corporation's Auditors with respect to financial and accounting information relating to the Corporation contained in the Final Prospectus, which letter shall be based on a review by the Corporation's Auditors within a cut-off date of not more than two Business Days prior to the date of the letter, which letter shall be in addition to the Corporation's Auditors consent letter addressed to the Canadian Securities Regulators; and
- (vi) prior to the filing of any Prospectus Amendment with the Securities Regulators, a copy of such Prospectus Amendment signed and certified as required by Applicable Securities Laws of the Canadian Selling Jurisdictions. Concurrently with the delivery of any Prospectus Amendment, the Corporation shall deliver to the Agent and the Agent's counsel, with respect to such Prospectus Amendment, opinions, comfort letters and such other documentation substantially equivalent or similar to those referred to in this Section 4, as appropriate or reasonably requested by the Agent in the circumstances.
- (b) Delivery of the Prospectus and any Prospectus Amendment shall constitute a representation and warranty by the Corporation to the Agent that, as at the date of the Prospectus or Prospectus Amendment, as the case may be: (i) all information and statements (except information and statements relating solely to the Agent and provided by the Agent in writing) contained in the Prospectus and any Prospectus Amendments are true and correct in all material respects and contain no misrepresentation and constitute full, true and plain disclosure of all material facts relating to the Corporation and the Offered Units and/or Additional Warrants; (ii) no material fact or information has been omitted from such disclosure (except facts or information relating solely to the Agent and provided by the Agent in writing) which is required to be stated in such disclosure or is necessary to make the statements or information contained in such disclosure not misleading in light of the circumstances under which they were made; (iii) such documents comply in all material respects with the requirements of the Applicable Securities Laws of the Canadian Selling Jurisdictions and have been filed (and a receipt therefor will be obtained, if required) in each of the Canadian Selling Jurisdictions; and (iv) except as set forth or contemplated in the Prospectus or any Prospectus Amendment, there has been no material change (actual, anticipated, contemplated, proposed or threatened) in the business, affairs, business prospects, operations, assets, liabilities (contingent or otherwise), capital or ownership of the Corporation since the end of the Prospectus and any Prospectus Amendment in connection with the Distribution of the Offered Units and/or Additional Warrants in the Selling Jurisdictions in compliance with this Agreement and Applicable Securities Laws.

(c) The Corporation shall cause commercial copies of the Final Prospectus, any Prospectus Amendment and the U.S. Memorandum to be delivered to the Agent without charge, in such numbers and in such cities as the Agent may reasonably request. Such delivery shall be effected as soon as possible after obtaining the Final Receipt and, in any event, no later than 12:00 p.m. (Toronto time) on April 5, 2018 or such other date and time as may be agreed upon by the Agent and the Corporation. The Corporation shall similarly cause to be delivered commercial copies of any Prospectus Amendment.

#### 5. Material Change During Distribution

- (a) During the Distribution of the Offered Units and/or Additional Warrants under the Prospectus, the Corporation shall promptly notify the Agent in writing of:
  - any material change (actual, anticipated, contemplated, proposed or threatened) in the business, affairs, business prospects, operations, assets, liabilities (contingent or otherwise), capital or ownership of the Corporation;
  - any material fact which has arisen or has been discovered and would have been required to have been stated in the Prospectus had the fact arisen or been discovered on, or prior to, the date of the Prospectus; and
  - (iii) any change in any material fact or matter covered by a statement contained in the Prospectus or any Prospectus Amendment (collectively, the "Offering Documents") which change is, or may be, of such a nature as to render any of the Offering Documents misleading or untrue or which would result in a misrepresentation in any of the Offering Documents or which would result in the Prospectus or any Prospectus Amendment not complying with the Applicable Securities Laws or other laws of any Canadian Selling Jurisdiction.
- (b) The Corporation will comply with Section 57 of the Securities Act (Ontario) and with the comparable provisions of other Applicable Securities Laws in the Canadian Selling Jurisdictions, and the Corporation will prepare and will file any Prospectus Amendment, which, in the opinion of the Agent and its counsel, acting reasonably, may be necessary to continue to qualify the Offered Units and/or Additional Warrants and Compensation Warrants for Distribution in each of the Canadian Selling Jurisdictions.
- (c) In addition to the provisions of subsections 5(a) and 5(b), the Corporation shall, in good faith, discuss with the Agent any fact or change in circumstances (actual, anticipated, contemplated, proposed or threatened, financial or otherwise) which is of such a nature that there is reasonable doubt whether written notice need be given under this section and shall consult with the Agent with respect to the form and content of any amendment or other Prospectus Amendment proposed to be filed by the Corporation, it being understood and agreed that no such amendment or other Prospectus Amendment shall be filed with any Securities Regulator prior to the review thereof by the Agent and its counsel, acting reasonably.

## 6. Covenants of the Corporation

The Corporation hereby covenants to the Agent that the Corporation:

- (a) shall advise the Agent, promptly after receiving notice thereof, of the time when the Final Prospectus and any Prospectus Amendment has been filed and receipts therefor have been obtained pursuant to the Passport System and will provide evidence reasonably satisfactory to the Agent of each such filing and copies of such receipts;
- (b) shall prior to the Closing Time (and the Agent's Option Closing Time, as applicable), allow the Agent (and its counsel and consultants) to conduct all due diligence which the Agent may reasonably require or consider necessary or appropriate in order to fulfill the Agent's obligations as registrants to complete the Offering as provided herein. The Corporation will provide to the Agent (and its counsel and consultants) reasonable access to the Corporation's properties (if any), senior management personnel and corporate, financial and other records, for the purposes of conducting such due diligence. Without limiting the scope of the due diligence inquiry the Agent (or its counsel and consultants) may conduct, the Corporation shall also make available its directors, senior management and counsel to answer any questions which the Agent may have and to participate in one or more due diligence sessions to be held prior to Closing (or the Agent's Option Closing Time) (collectively, the "Due Diligence Session"). The Agent shall distribute a list of written questions in advance of each Due Diligence Session;
- (c) shall forthwith advise the Agent of, and provide the Agent with copies of, any written communications relating to:
  - the issuance by any securities regulatory authority, including the TSX, of any order suspending or preventing the use of the Prospectus or any Prospectus Amendment or any cease trading or stop order or any halt in trading relating to the Common Shares or the institution or threat of any proceedings for that purpose; and
  - (ii) the receipt of any material communication from any securities regulatory authority, including the TSX, or other authority relating to the Prospectus or any Prospectus Amendment or the Offering;
- (d) shall use its commercially reasonable best efforts to prevent the issuance of any order referred to in (c)(i) above and, if issued, shall forthwith take all reasonable steps which it is able to take and which may be necessary or desirable in order to obtain the withdrawal thereof as soon as is reasonably practicable;
- (e) shall use its commercially reasonable best efforts to maintain its status as a "reporting issuer" (or the equivalent thereof) not in default of the requirements of the Applicable Securities Laws of each of the Canadian Selling Jurisdictions for as long as any Warrants or Additional Warrants remain outstanding, other than in a business combination or similar transaction where all the outstanding securities of the Corporation have been exchanged for cash or the securities of another issuer which is a reporting issuer under any Applicable Securities Laws;

- (f) shall use its commercially reasonable best efforts to maintain the listing of the Common Shares on the TSX and the OTCQB or such other recognized stock exchange or quotation system as the Agent may approve, acting reasonably, for as long as any Warrants or Additional Warrants remain outstanding, other than in a business combination or similar transaction where all the outstanding securities of the Corporation have been exchanged for cash or the securities of another issuer which is a reporting issuer under any Applicable Securities Laws;
- (g) shall use its commercially reasonable efforts to ensure that the Unit Shares, the Warrant Shares and the Compensation Shares will be conditionally approved for listing on the TSX upon their issue;
- (h) shall use the net proceeds of the Offering in the manner and subject to the qualifications described in the Prospectus under the heading "Use of Proceeds"; and
- (i) shall, as soon as practicable, use its commercially reasonable efforts to receive all necessary consents to the transactions contemplated herein.

## 7. Representations and Warranties of the Corporation

The Corporation hereby represents and warrants to the Agent that as at the date hereof:

- (a) the Corporation has been duly incorporated, continued or amalgamated and is validly existing under the laws of its governing jurisdiction, has all requisite power and authority and is duly qualified to carry on its business as now conducted and to own or lease its properties and assets and the Corporation has all requisite corporate power and authority to carry out its obligations under this Agreement, the Warrant Indenture (upon execution and delivery thereof), the Compensation Warrant Certificates (upon execution and delivery thereof) and any other document, filing, instrument or agreement delivered in connection with the Offering, and to carry out its obligations hereunder;
- (b) no agreement is in force or effect which in any manner affects the voting or control of any of the securities of the Corporation to which the Corporation is a party or of which the Corporation has knowledge;
- (c) the Corporation does not beneficially own, or exercise control or direction over, 10% or more of the outstanding voting shares of any company;
- (d) all consents, approvals, permits, authorizations or filings as may be required under Applicable Securities Laws necessary for the execution and delivery of this Agreement and the sale of the Offered Units and/or Additional Warrants, and the consummation of the transactions contemplated hereby, have been made or obtained or will be obtained prior to the Initial Closing Date, as applicable, subject only to the Standard Listing Conditions and any post-Closing notice filings required under applicable United States federal or state securities laws;

- (e) upon the execution and delivery thereof, each of this Agreement, the Warrant Indenture and the Compensation Warrant Certificates shall constitute a valid and binding obligation of the Corporation and each shall be enforceable against the Corporation in accordance with its terms, except as enforcement thereof may be limited by bankruptcy, insolvency, reorganization, moratorium and other laws relating to or affecting the rights of creditors generally and except as limited by the application of equitable principles when equitable remedies are sought, and by the fact that rights to indemnity, contribution and waiver, and the ability to sever unenforceable terms, may be limited by Applicable Law;
- (f) the currently issued and outstanding Common Shares are listed and posted for trading on the TSX and on the OTCQB and no order ceasing or suspending trading in the Common Shares or prohibiting the trading of any of the Common Shares has been issued and no proceedings for such purpose are pending or, to the knowledge of the Corporation, threatened;
- (g) the definitive form of certificate representing the Common Shares complies with the requirements of the *Business Corporations Act* (Ontario), complies with the requirements of the TSX Manual and does not conflict with the constating documents of the Corporation;
- (h) the Financial Statements:
  - have been prepared in accordance with international financial reporting standards in Canada consistently applied throughout the period referred to therein;
  - contain no misrepresentation and present fairly, in all material respects, the financial position (including the assets and liabilities, whether absolute, contingent or otherwise) of the Corporation as at such dates and results of operations of the Corporation for the periods then ended; and
  - (iii) contain and reflect adequate provision or allowance for all reasonably anticipated liabilities, expenses and losses of the Corporation,

and there has been no change in accounting policies or practices of the Corporation since December 31, 2016;

- the Corporation has not declared or paid any dividends or declared or made any other payments or distributions on or in respect of any of the Common Shares and has not, directly or indirectly, redeemed, purchased or otherwise acquired any of its securities or agreed to do so or otherwise effected any return of capital with respect to such securities;
- (j) all taxes (including income tax, capital tax, payroll taxes, employer health tax, workers' compensation payments, property taxes, custom and land transfer taxes), duties, royalties, levies, imposts, assessments, deductions, charges or withholdings and all liabilities with respect thereto including any penalty and interest payable with respect thereto (collectively, "Taxes") due and payable by the Corporation have been paid except where the failure to pay such taxes would not have a Material Adverse Effect. All tax returns, declarations, remittances and filings required to be filed by the Corporation have been filed with all appropriate governmental authorities and all such returns, declarations, remittances and filings are complete and accurate and no material fact or facts have been omitted therefrom which would make any of them misleading except where such failure would not have a Material Adverse Effect. The Corporation has not received any written notice regarding examination of any tax return of the Corporation currently in progress and the Corporation has no knowledge of any facts that could give rise to any such examination and there are no issues or disputes outstanding with any governmental authority respecting any Taxes that have been paid, or may be payable, by the Corporation except where such examinations would not have a Material Adverse Effect;

- (k) the Scientific Research and Experimental Development ("SR&ED") credits receivable as described in the Offering Documents and any other SR&ED credits otherwise applied for by the Corporation are based on underlying work, expenses and claims of the Corporation giving rise to such SR&ED credits which satisfy the requirements of the *Income Tax Act*(Canada) in order for the Corporation to claim or have claimed such SR&ED credits, and to the knowledge of the Corporation there are no facts, circumstances or basis upon which the applicable taxing authority could reject, disallow, adversely reassess or deny the Corporation any such SR&ED credits, except as otherwise disclosed to the Agent in writing;
- (l) the Corporation's Auditors, which are the auditors who audited the Financial Statements and who provided their audit report thereon, are independent public accountants under Applicable Securities Laws of the Canadian Selling Jurisdictions and there has never been a "reportable disagreement" (within the meaning of NI 51-102) between the Corporation and the Corporation's Auditors;
- (m) the Corporation maintains a system of internal accounting controls sufficient to provide reasonable assurance that:
  - (i) transactions are executed in accordance with management's general or specific authorization;
  - transactions are recorded as necessary to permit preparation of financial statements in conformity with international financial reporting standards and to maintain accountability for assets;
  - (iii) access to assets is permitted only in accordance with management's general or specific authorization; and
  - (iv) the recorded accountability for assets is compared with existing assets at reasonable intervals and appropriate action is taken with respect to any differences;
- (n) the Corporation is in compliance with the certification requirements contained in National Instrument 52-109 *Certification of Disclosure in Issuers' Annual and Interim Filings* of the Canadian Securities Administrators with respect to the Corporation's annual and interim filings with Canadian Securities Regulators;
- the audit committee of the Corporation is comprised and operates in accordance with the requirements of National Instrument 52-110 Audit Committees of the Canadian Securities Administrators;
- (p) except for the Warrants, the Compensation Warrants and as set forth in Schedule "A" to this Agreement, no holder of outstanding securities of the Corporation will be entitled to any pre-emptive or any similar rights to subscribe for any of the Common Shares or other securities of the Corporation, and no rights, warrants or options to acquire, or instruments convertible into or exchangeable for, any shares in the capital of the Corporation are outstanding;

- (q) all information which has been prepared by the Corporation relating to the Corporation and its business, properties and liabilities that is or has been publicly disclosed or otherwise provided to the Agent or its counsel, including any investor or corporate presentations posted on the Corporation's website, and all financial, marketing, sales and operational information, is, as of the date of such information, true and correct in all material respects, contains no misrepresentation and no fact or facts have been omitted therefrom which would make such information misleading;
- (r) except as properly disclosed in the Offering Documents, the Corporation has not approved, has not entered into any agreement in respect of, and to the knowledge of the Corporation there are no facts or circumstances in respect of:
  - the purchase of any material property or assets or any interest therein or the sale, transfer or other disposition of any material property or assets or any interest therein currently owned, directly or indirectly, by the Corporation whether by asset sale, transfer of shares or otherwise;
  - (ii) the issuance of any securities of the Corporation or a right of first refusal with respect to the issuance by the Corporation of any securities;
  - any change in control of the Corporation (whether by sale, transfer or other disposition of shares or sale, transfer, lease or other disposition of all or substantially all of the property and assets of the Corporation);
  - (iv) a proposed or planned disposition of shares by any shareholder who owns, directly or indirectly, 10% or more of the outstanding shares of the Corporation; or
  - (v) an agreement in force or having the effect of which in any manner affects or will affect the voting or control of any of the securities of the Corporation;
- (s) no legal or governmental proceedings are pending to which the Corporation is a party or to which its property is subject that would result individually or in the aggregate in a Material Adverse Effect and, to the knowledge of the Corporation, no such proceedings have been threatened against, or are contemplated with respect to, the Corporation or its properties;
- (t) the Corporation is the legal and beneficial owner, free of all mortgages, liens, charges, pledges, security interests, encumbrances, claims or demands whatsoever, of the interests in personal property referred to as owned by it in the Prospectus, and all material agreements under which the Corporation holds an interest in personal property are in good standing according to their terms;
- (u) the minute books and records of the Corporation made available to counsel for the Agent in connection with its due diligence investigations of the Corporation are all of the minute books and records of the Corporation and contain copies of all material proceedings of the shareholders, the board of directors and all committees of the board of directors of the Corporation to the date of review of such corporate records and minute books, and there have been no other meetings, resolutions or proceedings of the shareholders, board of directors or any committees of the board of directors of the Corporation not reflected in such minute books and other records;

- (v) the Corporation is, and will be at the Closing Time (and with respect to the sale of any Additional Offered Units and/or Additional Warrants, the Agent's Option Closing Time), an Eligible Issuer and a reporting issuer under Applicable Securities Laws in the Canadian Selling Jurisdictions, and the Corporation is not in default in any material respect of any requirement of Applicable Securities Laws and the Corporation is not included in a list of defaulting reporting issuers maintained by the applicable Securities Regulators. In particular, without limiting the foregoing, the Corporation is in compliance at the date hereof with its obligations to make timely disclosure of all material changes relating to it and, since January 1, 2015, no such disclosure has been made on a confidential basis and there is no material change relating to the Corporation which has occurred and with respect to which the requisite material change statement has not been filed, except to the extent that the Offering and the transactions contemplated thereunder may constitute a material change;
- (w) on March 6, 2018, the Corporation filed the Preliminary Prospectus in each of the Canadian Selling Jurisdictions and obtained, pursuant to the Passport System, a receipt or deemed receipt dated March 6, 2018 from the Ontario Securities Commission, as principal regulator, the British Columbia Securities Commission and the Alberta Securities Commission, for the Preliminary Prospectus;
- (x) the execution and delivery of each of this Agreement, the Warrant Indenture and the Compensation Warrant Certificates and the compliance with all provisions contemplated thereunder, the Offering and sale of the Offered Units and/or Additional Warrants and the issuance of the Offered Units and/or Additional Warrants and the Compensation Warrants does not and will not:
  - require the consent, approval, authorization, registration or qualification of or with any governmental authority, stock exchange, securities regulatory authority or other third party (in each case in the Selling Jurisdictions), except: (A) such as have been obtained; or (B) such as may be required and will be obtained by the Closing Time;
  - result in a breach of, or default under, nor create a state of facts which, after notice or lapse of time or both, would result in a breach of or default under, nor conflict with:
    - (A) any of the terms, conditions or provisions of the constating documents or resolutions of the shareholders, board of directors or any committee of the board of directors of the Corporation;
    - (B) any Applicable Law applicable to the Corporation, including the Applicable Securities Laws, or any judgment, order or decree of any governmental body, agency or court having jurisdiction over the Corporation; or
    - (C) any Material Agreement; or

- give rise to any lien, charge or claim in or with respect to the properties or assets now owned or hereafter acquired by the Corporation or the acceleration of or the maturity of any debt under any indenture, mortgage, lease, agreement or instrument binding or affecting the Corporation or any of its properties;
- (y) the authorized capital of the Corporation consists of an unlimited number of Common Shares of which, as of the close of business on April 2, 2018, 381,021,684 Common Shares are issued and outstanding as fully paid and non-assessable;
- (z) other than as contemplated hereby, there is no person acting or purporting to act at the request or on behalf of the Corporation that is entitled to any brokerage or finder's fee in connection with the Offering;
- (aa) all material disclosure filings required to be made by the Corporation pursuant to Applicable Securities Laws from January 1, 2016 have been made and such disclosure and filings contained no material misrepresentation as at the respective dates thereof;
- (bb) all forward-looking information and statements of the Corporation contained in the Prospectus and the assumptions underlying such information and statements, subject to any qualifications contained therein, including any forecasts and estimates, expressions of opinion, intention and expectation, as at the time they were or will be made, were or will be made or based on assumptions that are reasonable;
- (cc) the statistical, industry and market related data included in the Prospectus are derived from sources which the Corporation reasonably believes to be accurate, reasonable and reliable, and such data agrees in all material respects with the sources from which it was derived;
- (dd) the Corporation has no knowledge of any legislation, or proposed legislation (published by a legislative body), which it anticipates will materially and adversely affect the business, affairs, operations, assets, liabilities (contingent or otherwise) or prospects of the Corporation;
- (ee) the Corporation is in material compliance with all Applicable Laws respecting employment and employment practices, terms and conditions of employment, pay equity and wages, except where non-compliance with such laws could not reasonably be expected to have a Material Adverse Effect, and has not and is not engaged in any unfair labour practice;
- (ff) except as properly disclosed in the Offering Documents, there has not been and there is not currently any labour disruption or conflict which could reasonably be expected to have a Material Adverse Effect;
- (gg) the Corporation does not have any loans or other indebtedness outstanding which have been made to any of its officers, directors or employees, past or present, any known holder of more than 10% of any class of shares of the Corporation, or any person not dealing at arm's length with the Corporation that are currently outstanding;

- (hh) except as disclosed in the Disclosure Record, none of the directors, officers or employees of the Corporation, any known holder of more than 10% of any class of shares of the Corporation, or any associate or affiliate of any of the foregoing persons, had or has any material interest, direct or indirect, in any transaction or any proposed transaction that was or is material to the Corporation;
- (ii) the Corporation maintains insurance covering the properties, operations, personnel and businesses of the Corporation as the Corporation reasonably deems adequate; such insurance insures against such losses and risks to an extent which is adequate in the reasonable opinion of management of the Corporation to protect the Corporation and the business of the Corporation; all such insurance is fully in force on the date hereof and will be fully in force on the Closing Date; and the Corporation has no reason to believe that it will not be able to renew any such insurance as and when such insurance expires;
- (jj) the Corporation (i) is in compliance with any and all Applicable Laws relating to the protection of human health and safety, the environment or hazardous or toxic substances or wastes, pollutants or contaminants ("Environmental Laws"), (ii) has received all permits, licenses or other approvals required under applicable Environmental Laws to conduct its business, (iii) is in compliance with all terms and conditions of any such permit, license or approval, (iv) to the knowledge of the Corporation, there have been no past, and there are no pending or threatened claims, complaints, notices or requests for information received by the Corporation with respect to any alleged material violation of any Environmental Law, and (v) to the knowledge of the Corporation, no conditions of any such permit, license or other approval, even which, with the passage of time, or the giving of notice or both, would give rise to liability under any Environmental Law; except where such non-compliance, failure to receive a permit, licence or other approval, claim or condition would not, singly or in the aggregate, have or would be expected to have a Material Adverse Effect on the Corporation;
- (kk) no order, ruling or determination having the effect of suspending the sale or ceasing the trading in any securities of the Corporation has been issued by any securities regulatory authority and is continuing in effect and no proceedings for that purpose have been instituted or, to the knowledge of the Corporation, are pending, contemplated or threatened by any securities regulatory authority;
- (1) the Corporation has not made any loans to, or guaranteed the obligations of, any person;
- (mm) with respect to each of the premises of the Corporation which is material to the Corporation and which the Corporation occupies as tenant (the "Leased Premises"), the Corporation has the right to occupy and use such Leased Premises, and each of the leases pursuant to which the Corporation occupies the Leased Premises are in good standing and in full force and effect, and neither the Corporation nor any other party thereto is in breach of any material covenants, conditions or obligations contained therein;
- (nn) there have not been and there are not currently any material disagreements with any of the employees of the Corporation which are adversely affecting the carrying on of the business of the Corporation;
- (oo) there is no action, suit, proceeding, inquiry or investigation before or brought by any court or governmental agency or body, domestic or foreign, including, for the avoidance of doubt, any Regulatory Authority, now pending or threatened against or affecting the Corporation, which would cause a Material Adverse Effect;

- (pp) the Transfer Agent at its principal offices in the City of Toronto has been duly appointed as registrar and transfer agent for the Common Shares;
- (qq) neither the Corporation, nor to the knowledge of the Corporation, any director, officer, agent, employee or other person associated with or acting on behalf of the Corporation has: (i) used any corporate funds for any unlawful contribution, gift, entertainment or other unlawful expense relating to political activity; (ii) made any direct or indirect unlawful payment to any foreign or domestic government official or employee from corporate funds; (iii) violated any applicable anti-bribery, export control and economic sanctions laws including any provision of the *Corruption of Foreign Officials Act*

(Canada) or the United States Foreign Corrupt Practice Act; or (iv) made any bribe, rebate, payoff, influence payment, kickback or other unlawful payment;

- (rr) the Corporation holds all of the permits, licenses and like authorizations necessary for it to carry on its business in each jurisdiction where such business is carried on that are material to the conduct of the business of the Corporation (as such business is currently conducted), including, but not limited to, permits, licenses and like authorizations from Regulatory Authorities (collectively, the "Material Permits"); all such Material Permits which are so required are valid and subsisting and in good standing and none of the same contains any term, provision, condition or limitation which has or would reasonably be expected to affect or restrict in a materially adverse manner the operation of the business of the Corporation, as now carried on or proposed to be carried on, as set out in the Prospectus, and the Corporation is not in breach thereof or in default with respect to filings to be effected or conditions to be fulfilled in order to maintain such Material Permits in good standing;
- (ss) the Corporation is and at all times has been in material compliance with each Material Permit held by it and is not in violation of, or in default under, any such Material Permit in any material respect, except in any case where the Corporation has received a valid and effective waiver of such violation or default;
- (tt) all clinical studies, tests and trials being conducted by or on behalf of the Corporation that have been or will be submitted to any governmental entity, including any Regulatory Authority, including in Canada and the European Union, in connection with any Material Permits, are being or have been conducted by the Corporation or, to the knowledge of the Corporation, are being or have been conducted on behalf of the Corporation, in compliance in all material respects with applicable experimental protocols, procedures and controls pursuant to generally accepted professional scientific standards and applicable local, provincial, state, federal and foreign legal requirements, rules and regulations (including Applicable Laws administered by the Regulatory Authorities);
- (uu) the results of the clinical studies, tests and trials being conducted by or on behalf of the Corporation described in the Prospectus are accurate and complete in all material respects and, to the knowledge of the Corporation, there are no other trials, studies or tests, the results of which could reasonably call into question the results described or referred to in the Prospectus; and the Corporation has not received any notices or other correspondence from such Regulatory Authorities or any other governmental agency or any other person requiring the termination, suspension or material modification of any research, pre-clinical and clinical validation studies or other studies and tests that are described in the Prospectus or the results of which are referred to therein;

- except (i) with respect to Intellectual Property to which ownership is not statutorily protected, (ii) reversionary and moral rights, and (iii) for the Intellectual Property identified in Schedule "C", the Corporation is the sole legal and beneficial owner of, has good and marketable title to, and owns all right, title and interest in and to all Corporation IP free and clear of all encumbrances, charges, covenants, conditions, options to purchase and restrictions or other adverse
- (ww) Schedule "B" to this Agreement contains, among other things, a true and complete list of all active (including reinstatable) applied for and registered Patents and Trademarks owned by the Corporation;
- (xx) to the Corporation's knowledge, there is no Intellectual Property, other than the Intellectual Property which the Corporation owns and licenses, that is required to permit the Corporation to substantially carry on its present business as described in the Prospectus, and the Corporation has no knowledge of any Intellectual Property owned by another person that is required to permit the Corporation to substantially carry on its business as described in the Prospectus and to which the Corporation knows it cannot obtain a license;
- (yy) the licenses identified at Schedule "C" do not materially impede, restrict or prevent the conduct of the business of the Corporation as described in the Prospectus;
- (zz) the Corporation has not received any notice or claim (whether written, oral or otherwise) challenging the Corporation's ownership or right to use any of the Corporation IP or suggesting that any other person has any claim of legal or beneficial ownership or other claim or interest with respect thereto, nor, to the knowledge of the Corporation, is there a reasonable basis for any claim that any person other than the Corporation has any claim of legal or beneficial ownership or other claim or interest in any of the Corporation IP, except for the Intellectual Property identified in Schedule "C";
- (aaa) all active Applied for Corporation IP and active Registered Corporation IP is, to the knowledge of the Corporation, in good standing, is recorded in the name of the Corporation and has been filed in a timely manner in the appropriate offices to preserve the rights thereto (if any) and, in the case of a provisional application, the Corporation confirms that all right, title and interest in and to the potential invention(s) disclosed in such application have been or as of the Closing Date will be assigned in writing (without any express right to revoke such assignment) to the Corporation. To the knowledge of the Corporation, there has been no public disclosure, sale or offer for sale by the Corporation of any invention described in each of the Corporation IP anywhere in the world that would prevent the valid issue of a registration from that Corporation IP in the corresponding jurisdiction;
- (bbb) all material prior art or other information known to the Corporation relating to the Corporation IP has been disclosed to the appropriate offices if and to the extent such disclosure is required to comply with the Applicable IP Laws in the jurisdictions where the corresponding applications are pending;

claims or interest of any kind or nature, and the Corporation has no knowledge of any claim of adverse ownership in respect thereof;

(vv)

- (ccc) to the knowledge of the Corporation, all active Registered Corporation IP has been filed, prosecuted and obtained in accordance with the corresponding Applicable IP Laws and is currently in effect and in compliance with such Applicable IP Laws;
- (ddd) to the knowledge of the Corporation, and except for (i) provisional patent applications which were filed more than one year ago, and (ii) any inactive Intellectual Property identified in Schedule "B", no Applied for Corporation IP or Registered Corporation IP has expired, become abandoned, been cancelled or expunged, or has lapsed for failure to be renewed or maintained;
- (eee) to the knowledge of the Corporation, the conduct of the business of the Corporation (including the use or other exploitation of the Corporation IP by the Corporation or other licensees) has not infringed, violated or misappropriated any Intellectual Property right of any person;
- (fff) the Corporation is not a party to any legal action or legal proceeding, nor has the Corporation received notice of any legal action or legal proceeding being threatened, that alleges that any current or proposed conduct of the Corporation's business (including the use or other exploitation of any Corporation IP by the Corporation or any customers, distributors or other licensees) has or will infringe, violate or misappropriate any Intellectual Property right of any person;
- (ggg) to the knowledge of the Corporation, no person has infringed upon, misappropriated, illegally exported, or violated any of the Corporation's rights in the Corporation IP;
- (hhh) the Corporation has entered into agreements pursuant to which the Corporation has been granted licenses or permissions to one or more of make, use, reproduce, sub license, manufacture, sell, modify, update, enhance or otherwise exploit the Licensed IP to the extent required to operate the business of the Corporation currently conducted (including, if required, the right to incorporate such Licensed IP into the Corporation's products) as described in the Prospectus. To the knowledge of the Corporation, any Licensed IP that was terminated in the past 6 months is not material to the business of the Corporation;
- (iii) to the extent that any of the non-publicly disclosed Corporation IP is disclosed to any person or any person has access to such Corporation IP (including any employee, officer, shareholder or consultant of the Corporation), the Corporation has entered into an agreement which contains customary terms and conditions with respect to the use and disclosure of such Corporation IP. In each case in accordance with their respective terms, neither the Corporation nor, to the knowledge of the Corporation, any other person is in default of its obligations thereunder with respect to the terms and conditions relating to use and disclosure of Corporation IP;
- (jjj) the Corporation has taken all actions that it is contractually obligated to take and all actions that are customary and reasonable to protect the confidentiality of the Corporation IP that it treats as confidential;
- (kkk) to the knowledge of the Corporation, it is not, and will not be, necessary for the Corporation to utilize any Intellectual Property owned by or in possession of any of its employees that was made prior to their employment with the Corporation in a manner that is in violation of the rights of such employee or the rights of his or her prior employers;

- (III) the Corporation has not received any opinion from its legal counsel that any of the active Registered Corporation IP or Applied for Corporation IP is clearly, but not as a result of any prior art, invalid, unregistrable, or unenforceable in the case of Registered Corporation IP;
- (mmm) the Corporation has not received any grant relating to research and development which is subject to repayment in whole or in part or to conversion to debt upon sale of any Common Shares or which may affect the right of ownership of the Corporation in the Corporation IP;
- (nnn) the Corporation requires each of its employees and consultants to execute a non- disclosure agreement containing customary terms and conditions for agreements of this nature, and all current employees and consultants of the Corporation have executed such agreement and, to the knowledge of the Corporation, all past employees and consultants of the Corporation have executed such agreement;
- (000) all of the present and past employees of the Corporation, and all of the present and past consultants, contractors and agents of the Corporation performing services relating to the conception, discovery, making or development of the Corporation IP, have entered into a written agreement assigning or requiring assignment to the Corporation of, or confirming that the Corporation owns all right, title and interest in and to all such Intellectual Property and, with respect to any Corporation IP in which moral rights subsist, waiving all moral rights in such Intellectual Property in favour of the Corporation;
- (ppp) any and all fees or payments required to keep the Registered Corporation IP and, to the knowledge of the Corporation, the registered Licensed IP active have been paid, except those which the Corporation has decided to let lapse;
- (qqq) there are no ongoing Intellectual Property disputes, settlement negotiations, settlement agreements or communications relating to the foregoing between the Corporation and any other persons relating to or potentially relating to the business of the Corporation which have not been resolved;
- (rrr) the Corporation has conducted and is conducting its business in compliance in all material respects with all Applicable Laws of each jurisdiction in which it carries on business and has not received a notice of non-compliance, nor knows of, nor has reasonable grounds to know of, any facts that could give rise to a notice of non- compliance with any such Applicable Laws which would have a Material Adverse Effect;
- (sss) except pursuant to the licenses identified in Schedule "C", the Corporation has no knowledge of any reason why it would not be entitled to make use of or commercially exploit the Corporation IP. With respect to any license that is material to its business by which the Corporation has obtained the rights to exploit, in any way, the Licensed IP rights or by which the Corporation has granted to any third party the right to so exploit such Licensed IP:
  - such license is in operation and enforceable in accordance with its terms, except to the extent that enforceability may be limited by: (A) applicable bankruptcy, insolvency, reorganization, moratorium, and other laws of general application affecting enforcement of creditors' rights generally; or (B) laws relating to the availability of specific performance, injunctive relief, or other equitable remedies, and no event of default has occurred and is continuing under any such license or agreement;

- (ii) (A) the Corporation has not received any notice of termination or cancellation under such license, and no party thereto has any right of termination or cancellation thereunder except in accordance with its terms; (B) the Corporation has not received any notice of a breach or default under such license which breach or default has not been cured; and (C) the Corporation has not granted to any other person any rights contrary to, or in conflict with, the terms and conditions of such license;
- (iii) the Corporation has no knowledge of any other party to such license or agreement that is in breach or default thereof, and has no knowledge of any event that has occurred that, with notice or lapse of time would constitute such a breach or default or permit termination, modification or acceleration under such license or agreement;
- (ttt) none of the Corporation nor any of its predecessors has had the registration of a class of securities under the U.S. Exchange Act revoked by the United States Securities Exchange Commission pursuant to Section 12(j) of the U.S. Exchange Act and any rules or regulations promulgated thereunder;
- (uuu) the operations of the Corporation are and have been conducted at all times in compliance with, in each case to the extent applicable, the financial recordkeeping and reporting requirements of the *United States Currency and Foreign Transactions Reporting Act of 1970*, the *Proceeds of Crime (Money Laundering)* and *Terrorist Financing Act (Canada)*, the anti-money laundering statutes of all jurisdictions, the rules and regulations thereunder and any related or similar rules, regulations or guidelines, issued, administered or enforced by any governmental agency (collectively, the "Anti-Money Laundering Laws"), and no action, suit or proceeding by or before any court or governmental agency, authority or body or any arbitrator involving the Corporation with respect to the Anti-Money Laundering Laws is pending or, to the knowledge of the Corporation, threatened; and
- (vvv) neither the Corporation, nor, to the knowledge of the Corporation, any director, officer, agent, employee or affiliate of the Corporation is currently subject to any U.S. sanctions administered by the Office of Foreign Assets Control of the U.S. Treasury Department ("OFAC") and the Corporation will not directly or indirectly use the proceeds of the Offering, or lend, contribute or otherwise make available such proceeds to any subsidiary, joint venture partner or other person or entity, for the purpose of financing the activities of any person currently subject to any U.S. sanctions administered by OFAC.

#### 8. Closing

The purchase and sale of the Offered Units shall be completed at the Closing Time (and with respect to the Additional Offered Units and/or Additional Warrants, at the Agent's Option Closing Time) at the offices of counsel to the Corporation, Borden Ladner Gervais LLP, Toronto, Ontario, or at such other place or places as the Agent and the Corporation may agree. At the Closing Time (and with respect to the Additional Offered Units and/or Additional Warrants, at the Agent's Option Closing Time), the Corporation shall: (a) deliver to the Agent certificates in definitive form and/or book-entry only securities in accordance with the "non-certificated inventory" rules and procedures of CDS representing the Offered Units registered in the name of CDS & Co. or in such other name or names as shall be designated by the Agent; and (b) with respect to Purchasers in the United States that are Institutional Accredited Investors, deliver to the Agent physical certificates representing the Offered Units against payment by the Agent to the Corporation of the aggregate purchase price payable to the Corporation for the Offered Units and/or Additional Warrants by certified cheque, bank draft or wire transfer. The payment made to the Corporation will be net of the Agency Fee and net of amounts payable to the Agent's legal counsel, Baker & McKenzie LLP, and out-of-pocket expenses of the Agent incurred in connection with the Offering (which expenses shall be borne by the Corporation), as more fully set out in Section 13. In addition, the Corporation shall, at the Closing Time, issue to the Agent the Compensation Warrant Certificates.

If the aggregate gross proceeds to the Corporation from the Initial Closing is equal to or greater than the Minimum Offering, the Corporation and the Agent may agree from time to time to hold additional Closings on or prior to 30 days following the date of issuance of the Final Receipt to issue additional Offered Units until such time as the aggregate gross proceeds to the Corporation is equal to the Maximum Offering. Any such additional closing shall be referred to as a "**Subsequent Closing**" and shall be conducted in the same manner as the Initial Closing. At any Subsequent Closing, the Corporation and the Agent shall make all necessary payments and the Corporation shall, at its sole expense, deliver all of the certificates, opinions and other documents to be delivered by it on the Initial Closing Date, each updated to the date of any such Subsequent Closing.

## 9. Closing Conditions

The Agent's obligation to complete the Closing at the Closing Time (and with respect to the Additional Offered Units and/or Additional Warrants, at the Agent's Option Closing Time) shall be subject to the accuracy of the representations and warranties of the Corporation contained in this Agreement and in certificates required to be delivered by the Corporation hereunder as of the date of this Agreement and as of the Closing Date (and with respect to the Additional Offered Units and/or Additional Warrants, at the Agent's Option Closing Date), the performance by the Corporation of its obligations under this Agreement and the following conditions:

- (a) the Agent shall have received an opinion, dated the Closing Date, of the Corporation's Canadian counsel, Borden Ladner Gervais LLP, and any other local counsel, in form and substance satisfactory to the Agent, acting reasonably (it being understood that such counsel may rely to the extent appropriate in the circumstance: (i) as to matters of fact, on certificates of the Corporation executed on its behalf by a senior officer of the Corporation and on certificates of the Transfer Agent, as to the issued capital of the Corporation; and (ii) as to matters of fact not independently established, on certificates of public officials) with respect to the following matters (with such opinions being subject to usual and customary assumptions and qualifications, including the qualifications set out below):
  - as to the incorporation and subsistence of the Corporation under the laws of the Province of Ontario and as to the corporate power of the Corporation to carry out its obligations under this Agreement and to issue the securities as contemplated by this Agreement;
  - (ii) as to the authorized and issued capital of the Corporation;

- that the Corporation has all requisite corporate power and authority under the laws of its jurisdiction of incorporation to carry on its business and to own or lease its properties and assets as described in the Prospectus;
- (iv) that none of the execution and delivery of this Agreement, the Warrant Indenture and the Compensation Warrant Certificates and the performance by the Corporation of its obligations hereunder, or the sale or issuance of the Unit Shares, the Warrants, the Warrant Shares, the Compensation Warrants and the Compensation Shares will conflict with or result in any breach of the articles or by-laws of the Corporation;
- (v) that each of this Agreement, the Warrant Indenture and the Compensation Warrant Certificates has been duly authorized and executed and delivered by the Corporation, and constitutes a valid and legally binding obligation of the Corporation enforceable against it in accordance with its terms, except as enforcement thereof may be limited by bankruptcy, insolvency, liquidation, reorganization, moratorium or similar laws affecting the rights of creditors generally and except as limited by the application of equitable principles when equitable remedies are sought, and the qualification that the enforceability of rights of indemnity and contribution may be limited by Applicable Law;
- (vi) all necessary corporate action has been taken by the Corporation to authorize the execution and delivery of the Prospectus and any Prospectus Amendment and the filing of such documents as are required under Applicable Securities Laws in each of the Canadian Selling Jurisdictions;
- (vii) no consent, approval, authorization or order of or filing, registration or qualification with any court, governmental agency or body or securities regulatory authority having jurisdiction is required at this time for the execution and delivery by the Corporation of this Agreement, the Warrant Indenture or the Compensation Warrant Certificates and the performance of its obligations hereunder and thereunder, except for such as have been made or obtained;
- (viii) that the Unit Shares have been validly issued as fully paid and non-assessable securities in the capital of the Corporation;
- (ix) that the Warrants and Compensation Warrants have been duly and validly created and issued;
- that the Warrant Shares have been authorized and allotted for issuance and, upon the issuance of the Warrant Shares following due exercise of the Warrants in accordance with the terms thereof, the Warrant Shares will be validly issued as fully paid and non-assessable securities in the capital of the Corporation;
- (xi) that the Compensation Shares have been authorized and allotted for issuance and, upon the issuance of the Compensation Shares following due exercise of the Compensation Warrants in accordance with the terms thereof, the Compensation Shares will be validly issued as fully paid and nonassessable securities in the capital of the Corporation;

- (xii) all approvals, permits, consents, orders and authorizations have been obtained, all necessary documents have been filed and all other legal requirements have been fulfilled under Applicable Securities Laws of the Canadian Selling Jurisdictions to qualify the issuance or Distribution and sale of the Offered Units and/or Additional Warrants to the public in each of the Canadian Selling Jurisdictions and the Compensation Warrants to the Agent and to permit the issuance, sale and delivery of the Offered Units and/or Additional Warrants to the public through dealers registered under the Applicable Laws of each of the Canadian Selling Jurisdictions who have complied with the relevant provisions of such laws and the terms of their registration;
- (xiii) subject to the qualifications, assumptions, limitations and understandings set out therein, the statements set out in the Prospectus, under the heading "Eligibility for Investment" are true and correct as at the date of the Prospectus;
- (xiv) that the attributes of the Common Shares conform in all material respects with the description thereof contained in the Prospectus;
- (xv) that the Offering has been conditionally accepted by the TSX; and
- (xvi) as to such other matters as the Agent's legal counsel may reasonably request prior to the Closing Time;
- (b) if any sales of Offered Units have been effected in the United States or to, or for the account or benefit of, U.S. Persons, the Agent shall have received a legal opinion addressed to the Agent from United States local counsel, dated as of the Closing Date (and with respect to the Additional Offered Units and/or Additional Warrants, at the Agent's Option Closing Date), in form and substance satisfactory to the Agent, acting reasonably, to the effect that, subject to customary assumptions, the offer and sale of the Offered Units (and, if applicable, of any Additional Offered Units and/or Additional Warrants) in accordance with Schedule "D" are not required to be registered under the U.S. Securities Act;
- the Agent shall have received the Unit Shares, the Warrants and the Compensation Warrants (in physical or electronic form, subject to compliance with Applicable Securities Laws, and as the Agent may advise);
- (d) the Agent shall have received an incumbency certificate dated the Closing Date including specimen signatures of the President and Chief Executive Officer, the Chief Financial Officer and any other officer of the Corporation signing this Agreement or any document delivered hereunder;
- (e) the Agent shall have received a certificate dated the Closing Date (and with respect to the Additional Offered Units and/or Additional Warrants, at the Agent's Option Closing Date) of the President and Chief Executive Officer and the Chief Financial Officer of the Corporation or other officers of the Corporation acceptable to the Agent, to the effect that, to the best of their knowledge, information and belief, after due inquiry and without personal liability:
  - the representations and warranties of the Corporation contained in this Agreement are true and correct in all respects as if made at and as of the Closing Time (and with respect to the Additional Offered Units and/or Additional Warrants, at the Agent's Option Closing Time);

- the Corporation has complied with and satisfied the covenants, terms and conditions of this Agreement on its part to be complied with and satisfied up to the Closing Time (and with respect to the Additional Offered Units and/or Additional Warrants, at the Agent's Option Closing Time);
- (iii) the constating documents of the Corporation delivered at Closing are full, true and correct copies, unamended, and in effect on the date thereof;
- the minutes or other records of various proceedings and actions of the Corporation's board of directors relating to the Offering and delivered at Closing are full, true and correct copies thereof and have not been modified or rescinded as of the date thereof;
- (v) no order, ruling or determination having the effect of suspending the sale or ceasing the trading of the Common Shares or any other securities of the Corporation has been issued by any stock exchange, securities commission or securities regulatory authority and is continuing in effect and no proceedings for that purpose have been instituted or are pending;
- (vi) since the respective dates as of which information is given in the Prospectus as amended by any Prospectus Amendment: (A) there has been no material change (actual, anticipated, contemplated, proposed or threatened, whether financial or otherwise) in the business, financial condition, affairs, operations, business prospects, assets, liabilities or obligations (contingent or otherwise) or capital of the Corporation; and (B) other than the Offering and except as disclosed in the Prospectus or any Prospectus Amendment, as the case may be, no transaction has been entered into by the Corporation which constitutes a material change as defined in Applicable Securities Laws of the Canadian Selling Jurisdictions;
- (vii) none of the documents filed with applicable securities regulatory authorities since January 1, 2016, contained a misrepresentation as at the time the relevant document was filed that has not since been corrected; and
- (viii) there are no contingent liabilities affecting the Corporation which are material to the Corporation, other than as disclosed in the Final Prospectus or any Prospectus Amendment, as the case may be;
- (f) the Agent shall have received a comfort letter dated the Closing Date, in form and substance satisfactory to the Agent from the Corporation's Auditors, confirming the continued accuracy of the comfort letter to be delivered to the Agent pursuant to subsection 4(a)(v) with such changes as may be necessary to bring the information in such letter forward to a date not more than two Business Days prior to the Closing Date, which changes shall be acceptable to the Agent;

- (g) the Corporation's board of directors shall have authorized and approved the execution and delivery of this Agreement, the Warrant Indenture and the Compensation Warrant Certificates, the allotment, issuance and delivery of the Unit Shares and the creation and issuance of the Warrants and Compensation Warrants and, upon the due exercise of the Warrants and the Compensation Warrants, the allotment, issuance and delivery of the Warrant Shares and the Compensation Shares, as the case may be, and all matters relating thereto;
- (h) the Corporation shall have received the conditional approval from the TSX for the listing of the Unit Shares, Warrant Shares and Compensation Shares for trading on the TSX;
- the Corporation shall not have received any notice from the TSX that the Unit Shares, the Warrant Shares or Compensation Shares shall not be accepted for listing on the TSX;
- (j) that final acceptance of the Offering by the TSX shall be subject only to the fulfilment of Standard Listing Conditions;
- (k) the Agent shall have received confirmation from the Corporation that the Corporation is not on the defaulting issuer's list (or equivalent) maintained by the Canadian Securities Regulators in the Canadian Selling Jurisdictions;
- (1) the Agent shall have received a certificate of good standing or equivalent thereof in respect of the Corporation;
- (m) the Agent and its counsel shall have been provided with all information and documentation reasonably requested relating to their due diligence inquiries and investigations;
- (n) the Corporation will have made and/or obtained the necessary filings, approvals, consents and acceptances of the appropriate securities regulatory authorities required to be made or obtained by the Corporation in connection with the sale of the Offered Units to the Purchasers prior to the Closing Time (and with respect to the Additional Offered Units and/or Additional Warrants, at the Agent's Option Closing Time); as herein contemplated, it being understood that the Agent shall do all that is reasonably required to assist the Corporation to fulfil this condition, subject only to the Standard Listing Conditions and any post-Closing notice filings under applicable United States federal or state securities laws; and
- (o) the Agent shall have received a certificate from the Transfer Agent as to the number of Common Shares issued and outstanding as at a date no more than two Business Days prior to the Closing Date.

The Corporation agrees that the aforesaid legal opinions and certificates to be delivered at the Closing Time (and with respect to the Additional Offered Units and/or Additional Warrants, at the Agent's Option Closing Time) will be addressed to the Agent and the Agent's counsel.

## 10. All Terms to be Conditions

The Corporation agrees that the conditions contained in this Agreement, including those terms in Section 9, will be construed as conditions and any breach or failure to comply with any of the conditions shall entitle the Agent to terminate its obligations hereunder by written notice to that effect given to the Corporation at or prior to the Closing Time. It is understood that the Agent may waive, in whole or in part, or extend the time for compliance with, any of such terms and conditions without prejudice to the rights of the Agent in respect of any such terms and conditions or any other or subsequent breach or non-compliance of the Corporation, provided that to be binding on the Agent, any such waiver or extension must be in writing and signed by the Agent.

## 11. Rights of Termination

Without limiting any of the other provisions of this Agreement, the Agent will be entitled, at its option, to terminate and cancel, without any liability on its part or on the part of the Purchasers, its obligations under this Agreement by giving written notice to the Corporation at any time prior to the Closing Time if, after the date hereof and at any time prior to the Closing:

- (a) there shall have occurred any change in any material fact, material change (actual, intended, anticipated or threatened) or the Agent shall have discovered any previously undisclosed material fact (determined by the Agent in its sole discretion, acting reasonably) in relation to the Corporation, which, in the opinion of the Agent, acting reasonably, prevents or restricts trading in or the Distribution of the Offered Units or securities underlying the Offered Units or has or could reasonably be expected to have a Material Adverse Effect;
- (b) there shall have occurred any change in the Applicable Securities Laws of any Selling Jurisdiction or any inquiry, investigation or other proceeding by a securities regulatory authority or any order is issued under or pursuant to any statute of Canada or any province thereof or any stock exchange in relation to the Corporation or any of its securities (except for any inquiry, investigation or other proceeding based upon activities of the Agent and not upon activities of the Corporation), which, in the reasonable opinion of the Agent, would be expected to have a significant adverse effect on the market price of value of the Offered Units or securities underlying the Offered Units;
- (c) there should develop, occur or come into effect or existence any event, action, state, condition or major financial occurrence or catastrophe, accident, public protest, government law or regulation, war or act of terrorism of national or international consequence or any law or regulation which, in the opinion of the Agent, seriously adversely affects or involves, or will seriously adversely affect, or involve, the financial markets or the business, operations or affairs of the Corporation or the market price of value of the Offered Units or securities underlying the Offered Units;
- (d) the state of the financial markets in Canada and the United States is such that, in the reasonable opinion of the Agent, the Offered Units cannot be marketed profitably;
- (e) there is an inquiry or investigation (whether formal or informal) by any Securities Regulator or other regulatory authority in relation to the Corporation or any one of its directors or officers, or any of its principal shareholders, which has not been rescinded, revoked or withdrawn and which, in each case, operates to materially prevent or restrict the Distribution of the Offered Units as contemplated by this Agreement;
- (f) a cease trading order with respect to any securities of the Corporation is made by any Securities Regulator or other competent authority by reason of the fault of the Corporation or its directors, officers and agents and such cease trading order has not been rescinded, revoked or withdrawn;

- (g) the Agent, acting reasonably, is not satisfied in its sole discretion with its due diligence review and investigations;
- (h) the Corporation is in breach of a material term, condition or covenant of this Agreement or any representation or warranty given by the Corporation in this Agreement becomes or is false or misleading; and
- (i) the Corporation receives notice from the TSX that the Unit Shares, Warrant Shares and/or Compensation Shares shall not be accepted for listing on the TSX.

The rights of termination contained herein are in addition to any other rights or remedies that the Agent may have in respect of any default, act or failure to act or noncompliance by the Corporation in respect of any of the matters contemplated by this Agreement or otherwise.

In the event of any such termination, there shall be no further liability on the part of the Agent to the Corporation or on the part of the Corporation to the Agent except in respect of any liability which may have arisen prior to or arise after such termination under any or both of Sections 12 and 13.

### 12. Indemnity and Contribution

The Corporation agrees to indemnify and hold harmless the Agent and each Selling Firm (provided that each such Selling Firm is in material compliance with the covenants and obligations of the Agent set forth in Section 3 herein (as if such Selling Firm were an Agent), to the extent applicable) and each of their subsidiaries and affiliates, and each of their respective directors, officers, employees, shareholders, partners, advisors and agents (collectively, the "Indemnified Parties" and each, an "Indemnified Party"), to the full extent lawful, from and against any and all losses (except loss of profit), claims, actions, suits, proceedings, damages, liabilities or expenses of whatsoever nature or kind, including the aggregate amount paid in reasonable settlement of any actions, suits, proceedings, investigations or claims and the reasonable fees and expenses of their counsel in connection with any action, suit, proceeding, investigation or claim that may be made or threatened against any Indemnified Party or in enforcing this indemnify (collectively, the "Claims") to which an Indemnified Party may become subject or otherwise involved in any capacity insofar as the Claims relate to, are caused by, result from, arise out of or are based upon, directly or indirectly, the performance of professional services rendered to the Corporation by an Indemnified Party hereunder or otherwise in connection with the matters referred to in this Agreement, whether performed before or after the Corporation's execution of this Agreement, including in connection with Claims relating to or arising from the following:

- (a) any information or statement (except any information or statement relating solely to or provided by the Agent) contained in the Offering Documents, which at the time and in light of the circumstances under which it was made contains or is alleged to contain a misrepresentation or any omission or any alleged omission to state therein any fact or information (except facts or information relating solely to the Agent and provided by the Agent) required to be stated therein or necessary to make any of the statements therein not misleading in light of the circumstances in which they are made;
- (b) the omission or alleged omission to state in any certificate of the Corporation or of any officers of the Corporation delivered in connection with the Offering any material fact (except facts or information relating solely to the Agent and provided by the Agent) required to be stated therein where such omission or alleged omission constitutes or is alleged to constitute a misrepresentation;

- (c) any order made or any inquiry, investigation or proceeding commenced or threatened by any securities regulatory authority, stock exchange or by any other competent authority, based upon any misrepresentation (as defined in the *Securities Act* (Ontario)) or alleged misrepresentation (except a misrepresentation relating solely to the Agent and provided by the Agent) in the Offering Documents (except any document or material delivered or filed solely by the Agent) based upon any failure or alleged failure to comply with Applicable Securities Laws (other than any failure or alleged failure to comply by the Agent) preventing and restricting the trading in or the sale of the Offered Units in any of the Selling Jurisdictions;
- (d) the non-compliance or alleged non-compliance by the Corporation with any material requirement of Applicable Securities Laws, including the Corporation's non-compliance with any statutory requirement to make any document available for inspection; or
- (e) material breach of any representation, warranty or covenant of the Corporation contained in this Agreement or the failure of the Corporation to comply in all material respects with any of its obligations hereunder,

and further agrees to immediately reimburse each Indemnified Party forthwith, upon demand, for any legal or other expenses reasonably incurred by such Indemnified Party in connection with any Claim.

The Corporation also agrees that no Indemnified Party shall have any liability (either direct or indirect, in contract or tort or otherwise) to the Corporation or any person asserting Claims on the Corporation's behalf or in right for or in connection with the performance of professional services rendered to the Corporation by an Indemnified Party hereunder or otherwise in connection with the matters referred to in this Agreement, whether performed before or after the Corporation's execution of the Agreement, except to the extent that any losses, expenses, Claims, actions, damages or liabilities incurred by the Corporation are determined by a court of competent jurisdiction in a final judgement that has become non-appealable to have resulted from the Indemnified Party's breach of this Agreement, or the gross negligence, wilful misconduct, fraud or dishonesty of such Indemnified Party.

In the event and to the extent that a court of competent jurisdiction in a final judgement that has become non-appealable determines that an Indemnified Party breached this Agreement, or was grossly negligent or guilty of wilful misconduct, fraud or dishonesty in connection with a Claim in respect of which the Corporation has advanced funds to the Indemnified Party pursuant to this indemnity, such Indemnified Party shall immediately reimburse such funds to the Corporation and thereafter this indemnity shall not apply to such Indemnified Party in respect of such Claim.

The Corporation agrees to waive any right the Corporation might have of first requiring the Indemnified Party to proceed against or enforce any other right, power, remedy or security or claim payment from any other person before claiming under this indemnity.

In case any Claim is brought against an Indemnified Party, or an Indemnified Party has received notice of the commencement of any investigation in respect of which indemnity may be sought against the Corporation, the Indemnified Party will give the Corporation prompt written notice of any such Claim or investigation of which the Indemnified Party has knowledge and the Corporation will undertake the investigation and defence thereof on behalf of the Indemnified Party, including the prompt employment of counsel acceptable to the Indemnified Parties affected and the payment of all expenses. Failure by the Indemnified Party to so notify shall not relieve the Corporation of its obligation of indemnification hereunder unless (and only to the extent that) such failure results in the forfeiture by the Corporation of substantive rights or defences or the extent that the Corporation is materially prejudiced thereby.

No admission of liability and no settlement, compromise or termination of any Claim shall be made without the Corporation's consent and the consent of the Indemnified Parties affected, such consents not to be unreasonably withheld.

Notwithstanding that the Corporation will undertake the investigation and defence of any Claim, an Indemnified Party will have the right to employ separate counsel with respect to any Claim and participate in the defence thereof, but the fees and expenses of such counsel will be at the expense of the Indemnified Party unless:

- (a) the employment of such counsel has been authorized in writing by the Corporation;
- (b) the Corporation has not assumed the defence within a reasonable period of time after receiving notice of such Claim;
- (c) the named parties to any such Claim include both the Corporation and the Indemnified Party and the Indemnified Party shall have been advised by counsel that there may be a conflict of interest between the Corporation and the Indemnified Party; or
- (d) the Indemnified Party has been advised in writing by counsel that there are one or more defences available to the Indemnified Party which are different from or in addition to those available to the Corporation, which makes representation by the same counsel inappropriate.

The rights accorded to the Indemnified Parties hereunder shall be in addition to any rights an Indemnified Party may have at common law or otherwise.

If for any reason the foregoing indemnification is unavailable (other than in accordance with the terms hereof) to the Indemnified Parties (or any of them) or insufficient to hold them harmless, then the Corporation shall contribute to the amount paid or payable by the Indemnified Parties as a result of such Claim in such proportion as is appropriate to reflect not only the relative benefits received by the Corporation on the one hand and the Indemnified Parties on the other hand, but also the relative fault of the Corporation and the Indemnified Parties, as well as any other equitable considerations which may be relevant; provided that the Corporation shall, in any event, contribute to the amount paid or payable by the Indemnified Parties as a result of such Claim, any amount in excess of the fees actually received by the Indemnified Parties hereunder in which case such fees and expenses will be for the Corporation's account.

The Corporation hereby acknowledges the Agent as trustee for each of the other Indemnified Parties of the Corporation's covenants under this indemnity with respect to such persons and the Agent agrees to accept such trust and to hold and enforce such covenants on behalf of such persons.

The Corporation agrees to immediately reimburse the Agent monthly for the time spent by an Indemnified Party in connection with any Claim at their reasonable per diem rates. The Corporation also agrees that if any Claim shall be brought against, or an investigation commenced in respect of the Corporation or the Corporation and the Indemnified Parties shall be required to testify, participate or respond in respect of or in connection with the performance of professional services rendered to the Corporation by an Indemnified Party hereunder or otherwise in connection with the matters referred to in this Agreement, the Agent shall have the right to employ its own counsel in connection therewith and the Corporation will immediately reimburse the Agent monthly for the time spent by an Indemnified Party in connection therewith at their reasonable per diem rates together with such fees and disbursements and reasonable out-of-pocket expenses as may be incurred, including the fees and disbursements of the Agent's counsel.

## 13. Expenses

Whether or not the transactions contemplated by this Agreement shall be completed, all expenses of or incidental to the Offering and all expenses of or incidental to all other matters in connection with the transaction set out in this Agreement shall be borne directly by the Corporation, including fees and expenses payable in connection with the qualification of the Offerid Units and/or Additional Warrants and the Compensation Warrants for Distribution, fees and disbursements of counsel to the Agent incurred in connection with the Offering (to a maximum of \$60,000 plus disbursements and applicable taxes), all fees and disbursements of counsel to the Corporation and local counsel, all fees and expenses of the Corporation's Auditors, all fees or commissions payable in connection with sales of Offered Units and/or Additional Warrants to President's List Subscribers, the reasonable fees and expenses relating to the marketing of the Offered Units and/or Additional Warrants to President's List Subscribers, the reasonable fees and expenses relating to the marketing of the Offered Units and/or Additional Warrants to President's List Subscribers, the reasonable fees and expenses relating to the marketing of the Offered Units and/or Additional Warrants (including "road shows") marketing meetings, marketing documentation and institutional investor meetings) and all reasonable out-of-pocket expenses of the Agent (including the Agent's travel expenses in connection with due diligence, marketing meetings and "road shows") and all costs incurred in connection with the preparation and printing of the Prospectus, any Prospectus Amendment, and certificates representing the Unit Shares, Warrants and Compensation Warrants issued in connection with the Offering. All reasonable expenses incurred by or no behalf of the Agent and all fees and disbursements of counsel to the Agent payable pursuant to the foregoing shall be deducted from the aggregate purchase price for the Offered Units and/or Additional Warrants in accordance with Sec

#### 14. Survival of Representations, Warranties, Covenants and Agreements

The representations, warranties, covenants and agreements of the Corporation contained in this Agreement and in any certificate delivered pursuant to this Agreement or in connection with the purchase and sale of the Offered Units and/or Additional Warrants shall be true and correct at the Closing Time and the Agent's Option Closing Time and shall survive the purchase of the Offered Units and/or Additional Warrants and shall continue in full force and effect until the later of: (i) three years following the Closing Date; and (ii) the latest date under the Applicable Securities Laws in which a Purchaser of Offered Units and/or Additional Warrants is resident or, if the Applicable Securities Laws do not specify such a date, the latest date under the *Limitations Act, 2002* (Ontario).

#### 15. Conflict of Interest

The Corporation acknowledges that the Agent and its affiliates carry on a range of businesses, including providing stockbroking, investment advisory, research, investment management and custodial services to clients and trading in financial products as agent or principal. It is possible that the Agent and other entities in its group that carry on those businesses may hold long or short positions in securities of companies or other entities, which are or may be involved in the transactions contemplated in this Agreement and effect transactions in those securities for their own account or for the account of their respective clients. The Corporation agrees that these divisions and entities may hold such positions and effect such transactions without regard to the Corporation's interests under this Agreement.

#### 16. Fiduciary

The Corporation hereby acknowledges that the Agent is acting solely as agent in connection with the offer and sale of the Offered Units and/or Additional Warrants. The Corporation further acknowledges that the Agent is acting pursuant to a contractual relationship created solely by this Agreement entered into on an arm's length basis, and in no event do the parties intend that the Agent act or be responsible as a fiduciary to the Corporation, its management, shareholders or creditors or any other person in connection with any activity that the Agent may undertake or have undertaken in furtherance of such offer and sale of the Corporation's securities, either before or after the date hereof. The Agent hereby expressly disclaims any fiduciary or similar obligations to the Corporation, either in connection with the transactions contemplated by this Agreement or any matters leading up to such transactions, and the Corporation hereby confirms its understanding and agreement to that effect. The Corporation and the Agent agree that they are each responsible for making their own independent judgments with respect to any such transactions and the Agent to the Corporation regarding such transactions, including, but not limited to, any opinions or views with respect to the price or market for the Corporation's decurities, do not constitute advice or recommendations to the Corporation and the Agent agree that the Agent is acting as principal and not the agent or fiduciary of the Corporation and the Agent with respect to the prince or market for the Corporation's network develop or the process leading thereto (irrespective of whether the Agent has advised or is currently advising the Corporation on other matters). The Corporation hereby waives and releases, to the fullest extent permitted by law, any claims that the Corporation may have against the Agent with respect to any breach or alleged breach of any fiduciary duty to the Corporation in connection with the transactions contemplated by this Agreement.

## 17. Notice

Unless otherwise expressly provided in this Agreement, any notice or other communication to be given under this Agreement (a "Notice") shall be in writing addressed as follows:

If to the Corporation, addressed and sent to:

Titan Medical Inc. 170 University Avenue, Suite 1000 Toronto, Ontario M5H 3B3

 Attention:
 David J. McNally, President and Chief Executive Officer

 Email:
 david.mcnally@titanmedicalinc.com

with a copy (which shall not constitute notice) to:

Borden Ladner Gervais LLP Bay Adelaide Centre, East Tower 22 Adelaide Street West, Suite 3400 Toronto, Ontario M5H 4E3

| Attention: | Manoj Pundit    |
|------------|-----------------|
| Fax:       | (416) 367-6749  |
| Email:     | mpundit@blg.com |

If to the Agent, addressed and sent to:

Bloom Burton Securities Inc. 65 Front Street East, Suite 300 Toronto, Ontario M5E 1B5

Attention:Michael PollardEmail:mpollard@bloomburton.com

with a copy (which shall not constitute notice) to:

Baker & McKenzie LLP Brookfield Place, Bay/Wellington Tower 181 Bay Street, Suite 2100 Toronto, Ontario M5J 2T3

Attention:Ora WexlerFax:(416) 863-6275Email:ora.wexler@bakermckenzie.com

or to such other address as any of the persons may designate by Notice given to the others.

Each Notice shall be personally delivered to the addressee or sent by fax or email to the addressee and: (i) a Notice which is personally delivered shall, if delivered on a Business Day, be deemed to be given and received on that day and, in any other case, be deemed to be given and received on the first Business Day following the day on which it is delivered; and (ii) a Notice which is sent by fax or email shall be deemed to be given and received on the first Business Day following the day on which it is sent, provided that the sender has evidence of a successful transmission, such as a fax confirmation or email receipt confirmation.

### 18. Entire Agreement

The provisions herein contained constitute the entire agreement between the parties relating to the Offering and supersede all previous communications, representations, understandings and agreements between the parties, including the Engagement Letter, with respect to the subject matter hereof whether verbal or written.

## 19. Press Releases

Any press release connected with the Offering issued by the Corporation shall be issued only after consultation with the Agent and in compliance with Applicable Securities Laws. If the Offering is successfully completed, the Agent shall be permitted to publish, at the Agent's expense, such advertisements or announcements relating to the services provided hereunder in such newspaper or other publications as it may consider appropriate as long as such advertisement or announcement complies with Applicable Securities Laws.

## 20. Funds

Unless otherwise specified, all funds referred to in this Agreement shall be in Canadian dollars.

### 21. Time of the Essence

Time shall be of the essence of this Agreement.

## 22. Further Assurances

Each of the parties hereto shall cause to be done all such acts and things or execute or cause to be executed all such documents, agreements and other instruments as may reasonably be necessary or desirable for the purposes of carrying out the provisions and intent of this Agreement.

#### 23. Assignment

Except as contemplated herein, no party hereto may assign this Agreement or any part hereof without the prior written consent of the other party hereto. Subject to the foregoing, this Agreement shall enure to the benefit of, and shall be binding upon, the Corporation and the Agent and their successors and legal representatives, and nothing expressed or mentioned in this Agreement is intended or shall be construed to give any other person any legal or equitable right, remedy or claim under or in respect of this Agreement, or any provisions contained in this Agreement, this Agreement and all conditions and provisions of this Agreement being intended to be and being for the sole and exclusive benefit of such persons and for the benefit of no other person except that the covenants and indemnities of the Corporation set out under the heading "Indemnity and Contribution" shall also be for the benefit of the Indemnified Party.

#### 24. Severability

If any provision of this Agreement is determined to be void or unenforceable in whole or in part, it shall be deemed not to affect or impair the validity of any other provision of this Agreement and such void or unenforceable provision shall be severable from this Agreement.

## 25. Singular and Plural, etc.

Unless otherwise expressly provided in this Agreement, words importing only the singular number include the plural and vice versa and words importing gender include all genders. References to "Sections", "subsections" or "subparagraphs" are to the appropriate section, subsection or subparagraph of this Agreement. References to any agreement or instrument, including this Agreement, are deemed to be references to the agreement or instrument as varied, amended, modified, supplemented or replaced from time to time, references herein to "including" shall mean "including, without limitation", and any specific references herein to any legislation or enactment are deemed to be references to such legislation or enactment as the same may be amended or replaced from time to time.

## 26. Governing Law

This Agreement shall be governed by and construed in accordance with the laws of the Province of Ontario and the laws of Canada applicable therein and the parties hereto irrevocably attorn to the jurisdiction of the courts of such province.

## 27. Language

The parties hereto confirm their express wish that this Agreement and all documents and agreements directly or indirectly relating thereto be drawn up in the English language.

Les parties reconnaissent leur volonté express que la présente convention ainsi que tous les documents et contrats s'y rattachant directement ou indirectement soient rédigés en anglais.

## 28. Counterparts

This Agreement may be executed by any one or more of the parties to this Agreement in any number of counterparts, each of which shall be deemed to be an original, but all such counterparts shall together constitute one and the same agreement.

## 29. Facsimile and Electronic Transmission

The Corporation and the Agent shall be entitled to rely on delivery by facsimile or other electronic means of an executed copy of this Agreement and acceptance by the Corporation and the Agent of that delivery shall be legally effective to create a valid and binding agreement between the Corporation and the Agent in accordance with the terms of this Agreement.

## [REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]

If the foregoing is in accordance with your understanding and is agreed to by you, please signify your acceptance by executing this letter where indicated below and returning the same to the Agent upon which this letter as so accepted shall constitute an agreement between us.

Yours very truly,

## **BLOOM BURTON SECURITIES INC.**

By: <u>(signed)</u> "Jolyon Burton" Authorized Officer

The foregoing offer is accepted and agreed to as of the date first above written.

## TITAN MEDICAL INC.

By: <u>(signed)</u> "*Stephen Randall*" Authorized Officer

## SCHEDULE "A"

## CONVERTIBLE SECURITIES

## **OPTIONS**

| EXERCISE PRICE | NUMBER     | EXPIRY DATE        |
|----------------|------------|--------------------|
| 0.15           | 200,000    | September 7, 2020  |
| 0.15           | 368,059    | September 7, 2024  |
| 0.16           | 91,206     | September 15, 2020 |
| 0.32           | 33,150     | October 7, 2020    |
| 0.39           | 200,000    | December 4, 2020   |
| 0.40           | 58,429     | December 4, 2020   |
| 0.43           | 1,500,000  | April 17, 2024     |
| 0.48           | 568,493    | November 8, 2024   |
| 0.50           | 500,000    | February 7, 2024   |
| 0.50           | 8,218,452  | January 19, 2025   |
| 0.56           | 663,368    | August 2, 2018     |
| 0.57           | 8,325,572  | January 17, 2024   |
| 0.96           | 305,107    | December 20, 2018  |
| 1.00           | 3,171,558  | August 24, 2021    |
| 1.02           | 183,587    | December 23, 2020  |
| 1.08           | 564,292    | January 27, 2021   |
| 1.39           | 19,746     | December 16, 2019  |
| 1.51           | 16,796     | August 11, 2020    |
| 1.72           | 461,139    | June 9, 2020       |
| 1.76           | 106,096    | March 6, 2019      |
| 1.94           | 362,080    | May 21, 2019       |
| Total          | 25,917,130 |                    |

## WARRANTS

Below is a table that sets out the various series of the warrants of the Corporation that were previously issued, using historic rates. The disclosure of the potential proceeds in the last column of the table below assumes all warrants are exercised on or before the expiry date. However, there is no assurance that any warrants will be exercised prior to their expiry.

| Ticker<br>Symbol | Issue Date         | Expiry Date        | Number<br>Issued | Number<br>Outstanding | Exercise<br>Price<br>(CDN \$) | Potential<br>Proceeds<br>(CDN \$) |
|------------------|--------------------|--------------------|------------------|-----------------------|-------------------------------|-----------------------------------|
| TMD.WT.F         | November 16, 2015  | November 16, 2020  | 7,012,195        | 7,012,195             | \$1.60                        | 11,219,512                        |
| TMD.WT.G         | February 12, 2016  | February 12, 2021  | 11,670,818       | 11,600,818            | \$1.00                        | 11,600,818                        |
| TMD.WT.G         | February 23, 2016  | February 12, 2021  | 1,746,789        | 1,746,789             | \$1.00                        | 1,746,789                         |
| TMD.WT.H         | March 31, 2016     | March 31, 2021     | 15,054,940       | 15,054,940            | \$1.20                        | 18,065,928                        |
| TMD.WT.H         | April 14, 2016     | March 31, 2021     | 2,258,241        | 2,258,241             | \$1.20                        | 2,709,889                         |
| TMD.WT.I         | September 20, 2016 | September 20, 2021 | 17,083,333       | 17,083,333            | \$0.75                        | 12,812,500                        |
| TMD.WT.I         | October 27, 2016   | September 20, 2021 | 2,030,000        | 2,030,000             | \$0.75                        | 1,522,500                         |
| NOT LISTED       | March 16, 2017     | March 16, 2019     | 10,733,600       | 4,074,708             | \$0.40                        | 1,629,883                         |

| Ticker<br>Symbol | Issue Date       | Expiry Date      | Number<br>Issued | Number<br>Outstanding | Exercise<br>Price<br>(CDN \$) | Potential<br>Proceeds<br>(CDN \$) |
|------------------|------------------|------------------|------------------|-----------------------|-------------------------------|-----------------------------------|
| NOT LISTED       | March 16, 2017   | March 16, 2021   | 10,733,600       | 10,657,600            | \$0.50                        | 5,328,800                         |
| NOT LISTED       | June 29, 2017    | June 29, 2022    | 48,388,637       | 2,284,305             | \$0.20                        | 456,861                           |
| NOT LISTED       | July 21, 2017    | June 29, 2022    | 11,117,000       | 11,117,000            | \$0.20                        | 2,223,400                         |
| NOT LISTED       | August 24, 2017  | August 24, 2022  | 16,892,000       | 16,892,000            | \$0.20                        | 3,378,400                         |
| NOT LISTED       | December 5, 2017 | December 5, 2022 | 46,000,000       | 46,000,000            | \$0.60                        | 27,600,000                        |
| TOTAL            |                  |                  | 200,721,153      | 147,811,929           |                               | 100,295,280                       |

# BROKER WARRANTS

| Issue Date         | Number Issued | Exercise Price |
|--------------------|---------------|----------------|
| April 14, 2016     | 158,076       | \$1.00         |
| September 20, 2016 | 1,165,494     | \$0.60         |
| October 27, 2016   | 142,100       | \$0.60         |
| March 16, 2017     | 1,500,155     | \$0.35         |
| June 29, 2017      | 103,899       | \$0.15         |
| December 5, 2017   | 3,160,500     | \$0.50         |
| TOTAL              | 6,230,224     |                |

# SCHEDULE "B"

# **CORPORATION IP**

**Patents** 

| <u>Region</u> | Application Number       | Publication Number         | <u>IP Right Number</u> |
|---------------|--------------------------|----------------------------|------------------------|
| AU            | 2015362021               | 2015362021                 | -                      |
| CA            | 2984092                  | 2984092                    | -                      |
| CA            | 2986770                  | 2986770                    | -                      |
| CA            | 2913943                  | 2913943                    | -                      |
| CA            | 2996014                  | 2996014                    | -                      |
| CN            | 201580079340.0           | 107530875                  | -                      |
| CN            | 201580064733.4           | 107107343                  | -                      |
| CN            | 201380078618             | 105431106                  | -                      |
| CN            | 201680041417.X           | -                          | -                      |
| EP            | 15891039.8               | 3288720                    | -                      |
| EP            | 16810648.2               | -                          | -                      |
| EP            | 16734868.9               | 3242774                    | -                      |
| EP            | 16734867.1               | 3242773                    | -                      |
| EP            | 11876682.3               | 2785267                    | -                      |
| EP            | 16838146.5               | -                          | -                      |
| EP            | 17171068.4               | 3238650                    | -                      |
| EP            | 15866790.7               | 3206842                    | -                      |
| IN            | 201717021787             | 52/2017                    | -                      |
| IN            | 11772/DELNP/2015         | 21/2016                    | -                      |
| JP            | 2018-000231              | -                          | -                      |
| JP            | 2017-531374              | 2018504285                 | -                      |
| KR            | 2017-7017983             | 20170091690                | -                      |
| US            | 15/570,286               | -                          | -                      |
| US            | 15/566,525               | -                          | -                      |
| US            | 15/737,245               | -                          | -                      |
| US            | 15/677,307               | 20180054605                | -                      |
| US            | 15/542,356               | -                          | -                      |
| US            | 15/542,398               | 20170367777                | -                      |
| US            | 14/899,768               | 20160143633                | -                      |
| US            | 14/279,828               | 20140249546                | -                      |
| US<br>US      | 14/262,221               | 20140230595<br>20170225337 | -                      |
| US            | 15/494,740               | 20170223337                | -                      |
| US            | 15/893,195<br>15/690,035 | -                          | -                      |
| US            | 15/744,014               | -                          | -                      |
| US            | 15/754,566               | -                          | -                      |
| US            | 15/846,986               | -                          | -                      |
| US            | 15/552,993               | 20180049770                | -                      |
| US            | 15/490,098               | 20170333140                |                        |
| US            | 15/485,720               | -                          | -                      |
| US            | 15/686,571               |                            |                        |
| US            | 15/593,000               | -                          | -                      |
| WO            | PCT/CA2017/000085        | 2017177309                 | -                      |
| WO            | PCT/CA2017/000011        | 2017124177                 | -                      |
| WO            | PCT/CA2017/000056        | 2017156618                 | -                      |
| WO            | PCT/CA2016/000316        | 2017124170                 | -                      |
| WO            | PCT/CA2017/000078        | 2017173524                 | <u> </u>               |
| WO            | PCT/CA2016/000300        | 2017096455                 | -                      |
| CA            | 2982615                  | 2982615                    | 2982615                |
| CA            | 2973227                  | 2973227                    | 2973227                |
| CA            | 2973235                  | 2973235                    | 2973235                |
| CA            | 2968609                  | 2968609                    | 2968609                |
| EP            | 13887243.7               | 2996613                    | 2996613                |
| EP            | 11874984.5               | 2773277                    | 2773277                |
| JP            | 2016-520200              | 2016528946                 | 6274630                |
| US            | 15/442,070               | 20170156807                | 9,925,014              |
| US            | 15/294,477               | 20170027656                | 9,629,688              |
| US            | 15/211,295               | 20160346051                | 9,681,922              |
| US            | 14/831,045               | 20160030122                | 9,421,068              |
| US            | 14/302,723               | 20140316435                | 9,149,339              |
| US            | 14/261,614               | 20140276956                | 9,724,162              |
| US            | 13/660,615               | 20130197697                | 8,930,027              |
| US            | 13/660,328               | 20130197538                | 9,763,739              |
| US            | 13/494,852               | 20120253513                | 8,768,509              |
| US            | 13/106,306               | -                          | 9,033,998              |
| US            | 12/449,779               | 20100036393                | 8,792,688              |
| US            | 12/227,582               | 20100030377                | 8,224,485              |
| US            | 12/655,675               | -                          | 8,306,656              |
| US            | 12/583,351               | -                          | 8,332,072              |
|               |                          |                            |                        |
| US<br>US      | 12/459,292<br>09/474,924 | -                          | 8,347,754<br>6,358,196 |

# <u>Trademarks</u>

| Degion        | Serial Number      |                     |
|---------------|--------------------|---------------------|
| Region        |                    |                     |
| US            | 87222823           |                     |
| US            | 87222834           |                     |
| CA            | 1807214            |                     |
|               |                    |                     |
| <u>Region</u> | Application Number | Registration Number |
| CN            | 27681249           |                     |
| CN            | 27681250           |                     |
| CN            | 27681251           |                     |
| CN            | 27681252           |                     |
| CN            | 27681253           |                     |
| CN            | 27681254           |                     |
| CN            | 13580910           | 13580910            |
| CN            | 13580908           | 13580908            |
| CN            | 13580907           | 13580907            |
| CN            | 13580905           | 13580905            |
| CN            | 13580906           | (Inactive)          |
| CN            | 13580909           | (Inactive)          |

# SCHEDULE "C"

## LICENSOR CONTRACTS

# **Corporation as Licensor**

- Synergist Medical Inc., a predecessor to the Corporation, entered into a patent agreement with Reiza Rayman on May 12, 2008 pursuant to which Synergist Medical Inc. granted to Rayman certain exclusive rights in and to U.S. Patent No. 6,358,196.
- Synergist Medical Inc., a predecessor to the Corporation, entered into a patent agreement with John D. Unsworth on May 1, 2008 pursuant to which Synergist Medical Inc. granted to Unsworth certain exclusive rights in and to U.S. Patent Nos. 8,224,485, 8,768,509, 8,792,688, 9,421,068, and 9,681,922 and U.S. Patent Application No. 15/490,098.

### SCHEDULE "D"

## COMPLIANCE WITH UNITED STATES SECURITIES LAWS

### A. Definitions

Capitalized terms used in this Schedule "D" and not defined herein shall have the meanings ascribed thereto in the Agreement to which this Schedule is attached, and the following terms shall have the meanings indicated:

- (a) **"Dealer Covered Person**" has the meaning set forth below;
- (b) "Directed Selling Efforts" means "directed selling efforts" as that term is defined in Regulation S. Without limiting the foregoing, but for greater clarity in this Schedule "D", it means, subject to the exclusions from the definition of directed selling efforts contained in Regulation S, any activity undertaken for the purpose of, or that could reasonably be expected to have the effect of, conditioning the market in the United States for any of the Offered Units, the Unit Shares, the Warrants or the Warrant Shares and includes the placement of any advertisement in a publication with a general circulation in the United States that refers to the offering of any of such securities;
- (c) "**Disqualification Event**" has the meaning set forth below;
- (d) "QIB Letter" has the meaning set forth below.
- (e) "Qualified Institutional Buyer" means a "qualified institutional buyer" as that term is defined in Rule 144A;
- (f) **"Regulation D Securities**" has the meaning set forth below;
- (g) "Rule 144A" means Rule 144A under the U.S. Securities Act;
- (h) "Substantial U.S. Market Interest" means a "substantial U.S. market interest" as that term is defined in Regulation S; and
- (i) **"U.S. Subscription Agreement**" has the meaning set forth below.

### B. Representations, Warranties and Covenants of the Agent

The Agent acknowledges and agrees that the Offered Units, the Unit Shares, the Warrants and the Warrant Shares have not been and will not be registered under the U.S. Securities Act or applicable state securities laws, and the Offered Units, the Unit Shares and the Warrants may be offered and sold only in transactions exempt from, or not subject to, the registration requirements of the U.S. Securities Act and any applicable state securities laws. Accordingly, the Agent represents, warrants and covenants to the Corporation that:

1. None of the Agent, the U.S. Selling Group Member, their respective affiliates or any person acting on any of its or their behalf has offered or will offer any Offered Units, Unit Shares or Warrants except: (a) in an "offshore transaction," as such term is defined in Regulation S, outside the United States to non-U.S. Persons in accordance with Rule 903 of Regulation S; or (b) in the United States to, or for the account or benefit of, persons in the United States or U.S. Persons to Qualified Institutional Buyers or Institutional Accredited Investors purchasing pursuant to the exemption from the registration requirements of the U.S. Securities Act under Rule 506(b) of Regulation D and in compliance with similar exemptions under applicable state securities laws as provided in paragraphs 2 through 13 below. Accordingly, none of the Agent, the U.S. Selling Group Member, their respective affiliates or any person acting on any of its or their behalf, has made or will make (except as permitted in paragraphs 2 through 13 below): (i) any offer to sell, or any solicitation of an offer to buy, any Offered Units, Unit Shares or Warrants in the United States or to, or for the account or benefit of, any person in the United States, not a U.S. Person; (ii) any sale of Offered Units, Unit Shares or Warrants to any purchaser unless, at the time the buy order was or is originated, the purchaser was outside the United States, not a U.S. Person, and not acting for the account or benefit of a person, or the Agent, the U.S. Selling Group Member, their respective affiliates or person acting on its or their behalf reasonably believed that such purchaser was outside the United States, not a U.S. Person, or the Agent, the U.S. Selling Group Member, their respective affiliates or person acting on its or their behalf reasonably believed that such purchaser was outside the United States, not a U.S. Person; or is or person acting on its or their behalf reasonably believed that such purchaser was outside the United States, not a U.S. Pe

- 2. It has not entered and will not enter into any contractual arrangement with respect to the offer and sale of the Offered Units, the Unit Shares or the Warrants, except with the U.S. Selling Group Member, its affiliates, any Selling Firm or with the prior written consent of the Corporation. It shall require the Selling Group Member, its affiliates and any Selling Firm to agree in writing, for the benefit of the Corporation, to comply with, and shall use its best efforts to ensure that the Selling Group Member, its affiliates and any Selling Firm complies with, the same provisions of this Schedule "D" as apply to such Agent as if such provisions applied to the U.S. Selling Group Member, its affiliates and any Selling Firm.
- 3. All offers and sales of Offered Units, Unit Shares and Warrants in the United States or to, or for the account or benefit of, persons in the United States, or U.S. Persons, have been and shall be made only by the U.S. Selling Group Member or a Selling Firm, which is a U.S. broker-dealer registered pursuant to Section 15(b) of the U.S. Exchange Act and under the securities laws of each state in which offers and sales were or will be made (unless exempted from the respective state's broker-dealer registration requirements) and in good standing with the Financial Industry Regulatory Authority, Inc., in compliance with all applicable U.S. federal and state broker-dealer requirements.
- 4. Offers of Offered Units, Unit Shares and Warrants in the United States to, or for the account or benefit of, persons in the United States and U.S. Persons have not been made and shall not be made: (i) by any form of "general solicitation" or "general advertising" (as those terms are used in Rule 502(c) of Regulation D), including, without limitation, advertisements, articles, notices or other communications published in any newspaper, magazine or similar media, or on the internet, or broadcast over radio, television or the internet, or any seminar or meeting whose attendees have been invited by general solicitation or general advertising or (ii) or has taken or will take any action that would constitute a public offering of the Offered Units and/or Additional Warrants in the United States within the meaning of Section 4(a)(2) of the U.S. Securities Act.
- 5. The Agent, acting only through the U.S. Selling Group Member or a Selling Firm, has offered and will offer the Offered Units, the Unit Shares and the Warrants in the United States or to, or for the account or benefit of, persons in the United States and U.S. Persons only to offerees with respect to which the Agent, the U.S. Selling Group Member or the Selling Firm has a pre-existing business relationship and has reasonable grounds to believe and does believe, are either Qualified Institutional Buyers or Institutional Accredited Investors (and in compliance with Rule 506(b) of Regulation D and applicable state securities laws).

- 6. Each offeree of Offered Units, Unit Shares or Warrants in the United States, who is a U.S. Person or who is acting for the account or benefit of a person in the United States or a U.S. Person has been or shall be provided with a copy of the final U.S. Memorandum, in the form agreed to by the Corporation and the Agent, including the Prospectus. Prior to any sale of Offered Units, Unit Shares or Warrants to, or for the account of benefit of, a person in the United States or a U.S. Person or to a person who was offered such securities in the United States, each such purchaser shall be provided with a copy of the final U.S. Memorandum, including the Prospectus, and no other written material was used in connection with the offer or sale of the Offered Units, the Unit Shares or the Warrants to, or for the account or benefit of, persons in the United States or U.S. Persons.
- 7. Prior to the completion of any sale by the Corporation of Offered Units and/or Additional Warrants in the United States or to, or for the account or benefit of, persons in the United States or U.S. Persons, (i) each such purchaser that is a Qualified Institutional Buyer thereof will be required to execute a Qualified Institutional Buyer Letter in the form attached as Exhibit I to the final U.S. Memorandum (the "QIB Letter") or (ii) each such purchaser that is an Institutional Accredited Investor thereof will be required to execute a subscription agreement for sales to such U.S. purchasers in the form attached as Exhibit II to the final U.S. Memorandum (the "U.S. Subscription Agreement").
- 8. Prior to the Closing Date, the Agent will provide the Corporation and the transfer agent of the Corporation with a list of all purchasers of the Offered Units and/or Additional Warrants in the United States, who are U.S. Persons, who are purchasing for the account or benefit of persons in the United States or U.S. Persons or who were offered Offered Units and/or Additional Warrants in the United States. Prior to the Closing Date, the Agent will provide the Corporation with copies of all QIB Letters and U.S. Subscription Agreements, duly executed by such purchasers for acceptance by the Corporation.
- 9. At Closing, each of the Agent, the U.S. Selling Group Member and any applicable Selling Firm that has offered or sold Offered Units, Unit Shares or Warrants to, or for the account or benefit of, persons in the United States or U.S. Persons will provide a certificate, substantially in the form of Exhibit 1 to this Schedule "D", relating to the manner of the offer and sale of the Offered Units, the Unit Shares and the Warrants to, or for the account or benefit of, persons in the United States and U.S. Persons or the Agent and such persons will be deemed to have represented and warranted that no offers or sales of the Offered Units, the Unit Shares or the Warrants were made to, or for the account or benefit of, persons in the United States or U.S. Persons.
- 10. None of the Agent, the U.S. Selling Group Member, their respective affiliates or any person acting on any of its or their behalf has taken or will take, directly or indirectly, any action in violation of Regulation M under the U.S. Exchange Act with respect to the offer or sale of the Offered Units, the Unit Shares or the Warrants.
- 11. As of the Closing Date, with respect to Offered Units, Unit Shares and Warrants to be offered and sold hereunder in reliance on Rule 506(b) of Regulation D (the "Regulation D Securities"), the Agent represents that none of (i) the Agent or the U.S. Selling Group Member, (ii) the Agent or the U.S. Selling Group Member's directors, executive officers or other officers participating in the offering of the Regulation D Securities, (iv) any of the Agent's or the U.S. Selling Group Member's general partners' or managing members, (iii) any of the Agent's or the U.S. Selling Group Member's directors, executive officers or other officers participating in the offering of the Regulation D Securities, (iv) any of the Agent's or the U.S. Selling Group Member's general partners' or managing members' directors, executive officers or other officers participating in the offering of the Regulation D Securities or (v) any other person associated with any of the above persons, including any Selling Firm and any such persons related to such Selling Firm, that has been or will be paid (directly or indirectly) remuneration of purchasers in connection with sale of Regulation D Securities (each, a "Dealer Covered Person" and, collectively, the "Dealer Covered Persons"), is subject to any of the "Bad Actor" disqualifications described in Rule 506(d)(1) under Regulation D (a "Disqualification Event").

- 12. As of the Closing Date, the Agent represents that it is not aware of any person (other than any Dealer Covered Person) that has been or will be paid (directly or indirectly) remuneration for solicitation of purchasers in connection with the sale of any Regulation D Securities.
- 13. It is acquiring the Compensation Warrants and Compensation Shares as principal for its own account and not for the benefit of any other person. Furthermore, in connection with the issuance of the Compensation Warrants and Compensation Shares, (i) it is not a U.S. Person and it is not acquiring the Compensation Warrants and Compensation Shares in the United States, or on behalf of a U.S. Person or a person located in the United States, and (ii) the Agreement was executed and delivered outside the United States. It agrees that it will not engage in any Directed Selling Efforts with respect to any Compensation Warrants and Compensation Shares.

#### C. Representations, Warranties and Covenants of the Corporation

The Corporation represents, warrants, covenants and agrees that, as of the date hereof and the Closing Date:

- 1. The Corporation is a "foreign issuer", within the meaning of Regulation S, and reasonably believes that there is no Substantial U.S. Market Interest in the Offered Units, the Unit Shares, the Warrant Shares or any class of the Corporation's equity securities.
- 2. The Corporation is not, and as a result of the sale of the Offered Units, the Unit Shares and the Warrants and the issuance of the Warrant Shares will not be, an "investment company", as defined in the United States Investment Company Act of 1940, as amended, registered or required to registered under such Act.
- 3. During the period in which the Offered Units, the Unit Shares and the Warrants are offered for sale, none of it, its affiliates, or any person acting on its or their behalf (other than the Agent, the U.S. Selling Group Member, any of its or their respective affiliates, or any person acting on any of its or their behalf in respect of which no representation, warranty, covenant or agreement is made): (i) has made or will make any Directed Selling Efforts; or (ii) has engaged in or will engage in any form of "general solicitation" or "general advertising" (as those terms are used in Rule 502(c) of Regulation D) with respect to offers or sales of the Offered Units, the Unit Shares or the Warrants to, or for the account or benefit of, persons in the United States or U.S. Persons, including, without limitation, advertisements, articles, notices or other communications published in any newspaper, magazine or similar media or on the internet, or broadcast over radio, television or the internet, or any seminar or meeting whose attendees have been invited by general solicitation or general advertising or has taken or will take any action that would constitute a public offering of the Offered Units and/or Additional Warrants in the United States within the meaning of Section 4(a)(2) of the U.S. Securities Act.
- 4. For a period of six months prior to the commencement of the Offering, none of it, its affiliates or any person acting on its or their behalf (other than the Agent, the U.S. Selling Group Member, any of its or their respective affiliates, or any person acting on any of its or their behalf in respect of which no representation, warranty, covenant or agreement is made): (i) has sold, offered for sale or solicited any offer to buy, and will not sell, offer for sale or solicit any offer to buy, any of the Corporation's securities in a manner that would be integrated with the offer and sale of the Offered Units, the Unit Shares or the Warrants and would cause the exemption from registration set forth in Rule 506(b) of Regulation D to become unavailable with respect to the offer and sale of the Offered Units, the Unit Shares or the Corporation's securities in reliance upon Rule 506(c) of Regulation D or otherwise in a manner that would be integrated with the offer and sale of the Offered Units, the Unit Shares or the Warrants, and (ii) has engaged or will engage in any general solicitation or general advertising (within the meaning of Rule 502(c) of Regulation D) in connection with any offer or sale of the Corporation's securities in reliance upon Rule 506(c) of Regulation D or otherwise in a manner that would be integrated with the offer and sale of the Offered Units, the Unit Shares or the Warrants and would cause the exemption from registration set forth in Rule 506(b) of Regulation D to become unavailable with respect to the offer and sale of the Offered Units, the Unit Shares or the Warrants and would cause the exemption from registration set forth in Rule 506(b) of Regulation D to become unavailable with respect to the offer and sale of the Offered Units, the Unit Shares or the Warrants to, or for the account or benefit of, persons in the United States or U.S. Persons.

- 5. During the period in which the Offered Units, the Unit Shares and the Warrants are offered for sale, none of the Corporation, its affiliates, or any person acting on any of its or their behalf (other than the Agent, the U.S. Selling Group Member, any of its or their respective affiliates or any person acting on its or their behalf, in respect of which no representation, warranty, covenant or agreement is made) has taken or will take any action (i) in violation of Regulation M under the U. S. Exchange Act in connection with the offer or sale of the Offered Units, the Unit Shares or the Warrant Shares or (ii) that would cause the exemption afforded by Rule 506(b) of RegulationD to be unavailable for offers and sales of the Offered Units, the Unit Shares or the Warrants in the United States or to, or for the account or benefit of, persons in the United States or U.S. Persons in accordance with the Agreement, or the exclusion from registration afforded by Rule 903 of Regulation S to be unavailable for offers and sales of the Offered Units, the Unit Shares or the Warrants outside the United States to non-U.S. Persons in accordance with the Agreement.
- 6. Within 15 days of the first sale of the Offered Units, the Unit Shares or the Warrants in the United States to, or for the account or benefit of, persons in the United States or U.S. Persons, the Corporation will file a Form D, Notice of Sale, with the United States Securities and Exchange Commission and any applicable state securities commissions in connection with the offer and sale of such securities.
- Neither the Corporation nor any of its predecessors or affiliates has been subject to any order, judgment or decree of any court of competent jurisdiction, temporarily, preliminarily or permanently enjoining such person for failure to comply with Rule 503 of Regulation D.
- 8. Except with respect to offers and sales in accordance with this Agreement (including this Schedule "D") to, or for the account or benefit of, persons in the United States or U.S. Persons that are either Institutional Accredited Investors or Qualified Institutional Buyers in reliance upon the exemption from registration set forth in Rule 506(b) of Regulation D, none of the Corporation, its affiliates, or any person acting on its or their behalf (other than the Agent, the U. S. Selling Group Member, any of its or their respective affiliates or any person acting on any of its or their behalf, in respect of which no representation, warranty, covenant or agreement is made), has made or will make: (A) any offer to sell, or any solicitation of an offer to buy, any Offered Units, Unit Shares or Warrants in the United States or to, or for the account or benefit of, a person in the United States, not a U.S. Person and not acting for the account or benefit of a person in the United States, not a U.S. Person and not acting for the account or benefit of a person in the United States, not a U.S. Person and not acting for the account or benefit of a person in the United States, not a U.S. Person.

- 9. As of the Closing Date, with respect to the offer and sale of the Regulation D Securities, none of the Corporation, any of its predecessors, any "affiliated" (as such term is defined in Rule 501(b) of Regulation D) issuer, any director, executive officer or other officer of the Corporation participating in the offering of the Regulation D Securities, any beneficial owner of 20% or more of the Corporation's outstanding voting equity securities, calculated on the basis of voting power, or any promoter (as that term is defined in Rule 405 under the U.S. Securities Act) connected with the Corporation in any capacity at the time of sale of the Regulation D Securities (other than any Dealer Covered Person, as to whom no representation, warranty, acknowledgement, covenant or agreement is made) is subject to any Disqualification Event.
- 10. As of the Closing Date, the Corporation is not aware of any person (other than any Dealer Covered Person) that has been or will be paid (directly or indirectly) remuneration for solicitation of purchasers in connection with the sale of any Regulation D Securities.

## EXHIBIT 1

# TO SCHEDULE "D"

## AGENT'S CERTIFICATE

In connection with the private placement to, or for the account or benefit of, persons in the United States and U.S. Persons of the Offered Units of Titan Medical Inc. (the "**Corporation**") pursuant to the agency agreement dated April 3, 2018 by and between the Corporation and the Agent (the "**Agreement**"), the undersigned do hereby certify as follows:

- 1. (the "U.S. Selling Group Member") was on the date of each offer and sale of Offered Units, Unit Shares and Warrants in the United States or to, or for the account or benefit of, persons in the United States or U.S. Persons, and is on the date hereof, a duly registered broker-dealer with the United States Securities and Exchange Commission and under the securities laws of each state in which such offers and sales were made (unless exempted from the respective state's broker- dealer registration requirements) and a member of, and in good standing with, the Financial Industry Regulatory Authority, Inc.
- 2. All offers and sales of the Offered Units, the Unit Shares and the Warrants in the United States or to, or for the account or benefit of, persons in the United States and U.S. Persons have been conducted by us through the U.S. Selling Group Member and in accordance with the terms of the Agreement (including Schedule "D" thereto) and all applicable U.S. federal and state broker- dealers requirements.
- 3. Immediately prior to offering Offered Units, the Unit Shares and the Warrants to each prospective purchasers in the United States, who was a U.S. Person or who was acting for the account or benefit of a person in the United States or a U.S. Person (each, a "U.S. Offeree"), we had reasonable grounds to believe and did believe that each U.S. Offeree was either an Institutional Accredited Investor or a Qualified Institutional Buyer and, on the date hereof, we continue to believe that each U.S. Offeree purchasing the Offered Units from the Corporation is either an Institutional Accredited Investor or a Qualified Institutional Buyer.
- 4. Each U.S. Offeree of Offered Units, Unit Shares or Warrants was provided with a copy of the final U.S. Memorandum, in the form agreed to by the Corporation and the Agent, including the Prospectus, and each purchaser of Offered Units, Unit Shares or Warrants who (i) is in the United States, (ii) is a U.S. Person, (iii) is acting for the account or benefit of a person in the United States or a U.S. Person or (iv) was offered Units, Unit Shares or Warrants in the United States, was provided with a copy of the final U.S. Memorandum, including the Prospectus, and no other written material was used in connection with the offer and sale of the Offered Units, the Unit Shares or the Warrants to, or for the account or benefit of, persons in the United States or U.S. Persons;
- 5. No form of "general solicitation" or "general advertising" (as those terms are used in Rule 502(c) of Regulation D) was used by us, including, without limitation, advertisements, articles, notices or other communications published in any newspaper, magazine or similar media or on the internet or broadcast over radio, television or the internet, or any seminar or meeting whose attendees had been invited by general solicitation or general advertising, in connection with the offer and sale of the Offered Units, the Unit Shares or the Warrants to, or for the account or benefit of, persons in the United States or U.S. Persons.

- Prior to any sale of Offered Units, the Unit Shares or Warrants to a U.S. Offeree, we caused each such U.S. Offeree who is (i) a Qualified Institutional Buyer to execute 6. and a QIB Letter in the form of Exhibit I to the U.S. Memorandum or (ii) an Institutional Accredited Investor to execute a U.S. Subscription Agreement substantially in the form of Exhibit II to the U.S. Memorandum.
- Neither we nor any of our affiliates have taken or will take, directly or indirectly, any action in violation of Regulation M under the U.S. Exchange Act with respect to 7. the offer or sale of the Offered Units, the Unit Shares or the Warrants.
- None of (i) the undersigned, (ii) the undersigned's general partners or managing members, (iii) any of the undersigned's directors, executive officers or other officers 8. participating in the offering of the Regulation D Securities, (iv) any of the undersigned's general partners' or managing members' directors, executive officers or other officers participating in the offering of the Regulation D Securities or (v) any other person associated with any of the above persons, including any Selling Firm and any such persons related to such Selling Firm, that has been or will be paid (directly or indirectly) remuneration for solicitation of purchasers in connection with sale of Regulation D Securities (each, a "Dealer Covered Person" and, collectively, the "Dealer Covered Persons"), is subject to any to any of the "Bad Actor" disqualifications described in Rule 506(d)(1) under Regulation D (a "Disqualification Event").
- The undersigned represents that it is not aware of any person (other than any Dealer Covered Person) that has been or will be paid (directly or indirectly) remuneration 9. for solicitation of purchasers in connection with the sale of any Regulation D Securities.
- 10. The offering of the Offered Units, the Unit Shares or the Warrants to, or for the account or benefit of, persons in the United States or U.S. Persons has been conducted by us in accordance with the terms of the Agreement, including Schedule "D" thereto.

Capitalized terms used in this certificate have the meanings given to them in the Agreement, including Schedule "D" attached thereto, unless otherwise defined herein.

| DATED this day of | , 2018. |  |
|-------------------|---------|--|
|                   |         |  |

| BLOOM BURTON SECURITIES INC. | [U.S. SEL] | LING GROUP MEMBER] |
|------------------------------|------------|--------------------|
| Ву:                          | By:        |                    |
| Name:                        | Name:      |                    |
| Title:                       | Title:     |                    |
|                              |            |                    |



## **Titan Medical Announces Filing of Final Prospectus**

## NOT FOR DISTRIBUTION TO UNITED STATES NEWSWIRE SERVICES OR FOR DISSEMINATION IN THE UNITED STATES

TORONTO, April 03, 2018 -- **Titan Medical Inc. ("Titan" or the "Company")** (TSX:TMD) (OTCQB:TITXF), a medical device company focused on the design, development and commercialization of a robotic surgical system for application in minimally invasive surgery ("**MIS**"), announces today that it has filed and been receipted for a final short form prospectus (the "**Final Prospectus**") in connection with the marketed offering (the '**Offering**") of units of the Company (the "**Units**") for minimum gross proceeds of CDN \$10,000,000 and maximum gross proceeds of CDN \$15,000,000. Pursuant to the Offering, Titan will issue Units at a price of CDN \$0.30 per Unit. Each Unit is comprised of one common share of the Company (a "**Common Share**") and one Common Share purchase warrant of the Company (a "**Warrant**"). Each Warrant is exercisable for one Common Share at a price of CDN \$0.35 for a period of 5 years following the initial closing date of the Offering.

The Offering will be undertaken on a best efforts basis pursuant to the terms and conditions of an agency agreement dated April 3, 2018 between the Company and Bloom Burton Securities Inc. (the "Agent"). In connection with the Offering, the Agent will be paid a cash commission equal to 7.0% of the gross proceeds of the Offering and it will be issued that number of non-transferable broker warrants exercisable for Common Shares equal to 7.0% of the number of Units sold in the Offering (in each case excluding any Units sold to certain excluded subscribers). The Agent has been granted the option to offer for sale additional Units (the "**Over-Allotment Units**") at the price issued under the Offering and/or additional Warrants (the "**Over-Allotment Warrants**") at a price of CDN \$0.17 per Over-Allotment Warrant, exercisable in whole or in part at any time and from time to time on the first Closing Date or up to 30 days following the first Closing Date, so long as the aggregate number of Over-Allotment Units and Over-Allotment Warrants does not exceed 15% of the number of Units issued under the Offering.

The Final Prospectus has been filed in each of the provinces of Ontario, British Columbia and Alberta pursuant to National Instrument 44-101 -Short Form Prospectus Distributions. In addition, the Units may also be offered for sale in the United States, by or through United States registered broker-dealers appointed by the Agent as subagents, and in certain offshore jurisdictions, in each case under available exemptions from the prospectus and registration requirements of applicable securities laws.

In its press release dated March 7, 2018, the Company stated that it intended to file an amended and restated preliminary short form prospectus (the **Amended and Restated Preliminary Prospectus**"). The Company has not and will not file an Amended and Restated Preliminary Prospectus, electing instead to proceed directly to filing the Final Prospectus announced today.

It is expected that closing of the Offering will occur on or about April 10, 2018, or such other date or dates as the Company and the Agent may agree.

The net proceeds of the Offering (the "Net Proceeds") will be used to fund continued development work in connection with the Company's SPORT Surgical System, as well as for working capital and other general corporate purposes. Please see "Use of Proceeds" in the Final Prospectus, which is available under the Company's profile at www.sedar.com, for further details of the intended use of the Net Proceeds.

The Common Shares are listed on the Toronto Stock Exchange (the **'TSX'**) under the symbol "TMD". The TSX has conditionally approved the listing of the Common Shares issuable under the Offering. Listing will be subject to the Company fulfilling all of the requirements of the TSX on or before June 4, 2018.

### About Titan

Titan is a Canadian public company focused on research and development through to the planned commercialization of computer-assisted robotic surgical technologies for application in MIS. The Company is currently developing the SPORT Surgical System, a single-port robotic surgical system. The SPORT Surgical System is comprised of a surgeon-controlled patient cart that includes a 3D high definition vision system and multi-articulating instruments for performing MIS procedures, and a surgeon workstation that provides the surgeon with an advanced ergonomic interface to the patient cart and a 3D endoscopic view inside the patient's body during MIS procedures. With the SPORT Surgical System, the Company aims to pursue a broad set of surgical indications, including general abdominal, gynecologic and urologic procedures.

For more information, please visit the Company's website at www.titanmedicalinc.com.

### Forward-Looking Statements

This news release contains "forward-looking statements" which reflect the current expectations of management of the Company's future growth, results of operations, performance and business prospects and opportunities. Wherever possible, words such as "may", "would", "could", "will", "anticipate", "believe", "plan", "expect", "intend", "estimate", "potential for" and similar expressions have been used to identify these forward-looking statements. These statements, including with respect to the use of the Net Proceeds and the listing of the Common Shares on the TSX, reflect management's current beliefs with respect to future events and are based on information currently available to management. Forward-looking statements involve significant risks, uncertainties and assumptions. Many factors could cause the Company's actual results, performance or achievements to be materially different from any future results, performance or achievements that may be expressed or implied by such forward-looking statements, including, without limitation, those listed in the "Risk Factors" section of the Final Prospectus and the Company's Annual Information Form dated March 31, 2018 (which may be viewed at www.sedar.com). Should one or more of these risks or uncertainties materialize, or should assumptions underlying the forward-looking statements prove incorrect, actual results, performance, or achievements may vary materially from those expressed or implied by the forward-looking statements contained in this news release. These factors should be considered carefully, and prospective investors should not place undue reliance on the forward-looking statements. Although the forward-looking statements contained in the expective investors that actual results, performance or achievements will be consistent with these forward-looking statements.

# **U.S. Securities Law Caution**

The securities described herein have not been, and will not be, registered under the United States *Securities Act of 1933*, as amended (the "U.S. Securities Act"), or any state securities laws, and accordingly, may not be offered or sold to, or for the account or benefit of, persons in the United States or "U.S. persons", as such term is defined in Regulation S promulgated under the U.S. Securities Act ("U.S. Persons"), except in compliance with the registration requirements of the U.S. Securities Act and applicable state securities requirements or pursuant to exemptions therefrom. This press release does not constitute an offer to sell or a solicitation of an offer to buy any of the Company's securities to, or for the account or benefit of, persons in the United States or U.S. Persons.

### **Contact Information**

LHA Investor Relations Kim Sutton Golodetz (212) 838-3777 kgolodetz@lhai.com

or

Bruce Voss (310) 691-7100 bvoss@lhai.com

### FORM 52-109F1 CERTIFICATION OF ANNUAL FILINGS FULL CERTIFICATE

## I, David McNally, President and Chief Executive Officer, Titan Medical Inc., certify the following:

- 1. Review: I have reviewed the AIF, if any, annual financial statements and annual MD&A, including, for greater certainty, all documents and information that are incorporated by reference in the AIF (together, the "annual filings") of **Titan Medical Inc.** (the "issuer") for the financial year ended **December 31, 2017**.
- 2. No misrepresentations: Based on my knowledge, having exercised reasonable diligence, the annual filings do not contain any untrue statement of a material fact or omit to state a material fact required to be stated or that is necessary to make a statement not misleading in light of the circumstances under which it was made, for the period covered by the annual filings.
- 3. *Fair presentation:* Based on my knowledge, having exercised reasonable diligence, the annual financial statements together with the other financial information included in the annual filings fairly present in all material respects the financial condition, financial performance and cash flows of the issuer, as of the date of and for the periods presented in the annual filings.
- 4. **Responsibility:** The issuer's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (DC&P) and internal control over financial reporting (ICFR), as those terms are defined in National Instrument 52-109 *Certification of Disclosure in Issuers' Annual and Interim Filings*, for the issuer.
- 5. Design: Subject to the limitations, if any, described in paragraphs 5.2 and 5.3, the issuer's other certifying officer(s) and I have, as at the financial year end:
  - (a) designed DC&P, or caused it to be designed under our supervision, to provide reasonable assurance that:
    - (i) material information relating to the issuer is made known to us by others, particularly during the period in which the annual filings are being prepared; and
    - (ii) information required to be disclosed by the issuer in its annual filings, interim filings or other reports filed or submitted by it under securities legislation is recorded, processed, summarized and reported within the time periods specified in securities legislation; and
  - (b) designed ICFR, or caused it to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with the issuer's GAAP.

5.1 *Control framework:* The control framework the issuer's other certifying officer(s) and I used to design the issuer's ICFR is *Integrated Framework* published by The Committee of Sponsoring Organizations of the Treadway Commission.

## 5.2 ICFR -- material weakness relating to design: N/A.

## 5.3 Limitation on scope of design: N/A.

- 6. *Evaluation:* The issuer's other certifying officer(s) and I have:
  - (a) evaluated, or caused to be evaluated under our supervision, the effectiveness of the issuer's DC&P at the financial year end and the issuer has disclosed in its annual MD&A our conclusions about the effectiveness of DC&P at the financial year end based on that evaluation; and
  - (b) evaluated, or caused to be evaluated under our supervision, the effectiveness of the issuer's ICFR at the financial year end and the issuer has disclosed in its annual MD&A
    - (i) our conclusions about the effectiveness of ICFR at the financial year end based on that evaluation; and
    - (ii) for each material weakness relating to operation existing at the financial year end
      - (A) a description of the material weakness;
      - (B) the impact of the material weakness on the issuer's financial reporting and its ICFR; and
      - (C) the issuer's current plans, if any, or any actions already undertaken, for remediating the material weakness.
- 7. *Reporting changes in ICFR*: The issuer has disclosed in its annual MD&A any change in the issuer's ICFR that occurred during the period beginning on January 1, 2017 and ended on December 31, 2017 that has materially affected, or is reasonably likely to materially affect, the issuer's ICFR.
- 8. Reporting to the issuer's auditors and board of directors or audit committee: The issuer's other certifying officer(s) and I have disclosed, based on our most recent evaluation of ICFR, to the issuer's auditors, and the board of directors or the audit committee of the board of directors any fraud that involves management or other employees who have a significant role in the issuer's ICFR.

Date: March 31, 2018 (SIGNED) "David McNally" David McNally President and Chief Executive Officer Titan Medical Inc.

### FORM 52-109F1 CERTIFICATION OF ANNUAL FILINGS FULL CERTIFICATE

I, Stephen Randall, Chief Financial Officer, Titan Medical Inc., certify the following:

- 1. *Review:* I have reviewed the AIF, if any, annual financial statements and annual MD&A, including, for greater certainty, all documents and information that are incorporated by reference in the AIF (together, the "annual filings") of **Titan Medical Inc.** (the "issuer") for the financial year ended**December 31, 2017**.
- 2. No misrepresentations: Based on my knowledge, having exercised reasonable diligence, the annual filings do not contain any untrue statement of a material fact or omit to state a material fact required to be stated or that is necessary to make a statement not misleading in light of the circumstances under which it was made, for the period covered by the annual filings.
- 3. Fair presentation: Based on my knowledge, having exercised reasonable diligence, the annual financial statements together with the other financial information included in the annual filings fairly present in all material respects the financial condition, financial performance and cash flows of the issuer, as of the date of and for the periods presented in the annual filings.
- 4. **Responsibility:** The issuer's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (DC&P) and internal control over financial reporting (ICFR), as those terms are defined in National Instrument 52-109 *Certification of Disclosure in Issuers' Annual and Interim Filings*, for the issuer.
- 5. Design: Subject to the limitations, if any, described in paragraphs 5.2 and 5.3, the issuer's other certifying officer(s) and I have, as at the financial year end:
  - (a) designed DC&P, or caused it to be designed under our supervision, to provide reasonable assurance that:
    - (i) material information relating to the issuer is made known to us by others, particularly during the period in which the annual filings are being prepared; and
    - (ii) information required to be disclosed by the issuer in its annual filings, interim filings or other reports filed or submitted by it under securities legislation is recorded, processed, summarized and reported within the time periods specified in securities legislation; and
  - (b) designed ICFR, or caused it to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with the issuer's GAAP.

5.1 *Control framework:* The control framework the issuer's other certifying officer(s) and I used to design the issuer's ICFR is *Integrated Framework* published by The Committee of Sponsoring Organizations of the Treadway Commission.

## 5.2 ICFR -- material weakness relating to design: N/A.

## 5.3 Limitation on scope of design: N/A.

- 6. *Evaluation:* The issuer's other certifying officer(s) and I have:
  - (a) evaluated, or caused to be evaluated under our supervision, the effectiveness of the issuer's DC&P at the financial year end and the issuer has disclosed in its annual MD&A our conclusions about the effectiveness of DC&P at the financial year end based on that evaluation; and
  - (b) evaluated, or caused to be evaluated under our supervision, the effectiveness of the issuer's ICFR at the financial year end and the issuer has disclosed in its annual MD&A
    - (i) our conclusions about the effectiveness of ICFR at the financial year end based on that evaluation; and
    - (ii) for each material weakness relating to operation existing at the financial year end
      - (A) a description of the material weakness;
      - (B) the impact of the material weakness on the issuer's financial reporting and its ICFR; and
      - (C) the issuer's current plans, if any, or any actions already undertaken, for remediating the material weakness.
- 7. *Reporting changes in ICFR*: The issuer has disclosed in its annual MD&A any change in the issuer's ICFR that occurred during the period beginning on January 1, 2017 and ended on December 31, 2017 that has materially affected, or is reasonably likely to materially affect, the issuer's ICFR.
- 8. Reporting to the issuer's auditors and board of directors or audit committee: The issuer's other certifying officer(s) and I have disclosed, based on our most recent evaluation of ICFR, to the issuer's auditors, and the board of directors or the audit committee of the board of directors any fraud that involves management or other employees who have a significant role in the issuer's ICFR.

Date: March 31, 2018 (SIGNED) "Stephen Randall" Stephen Randall Chief Financial Officer Titan Medical Inc.

# TITAN MEDICAL.

### Titan Medical Announces Closing of Previously Announced Public Offering

## NOT FOR DISTRIBUTION TO UNITED STATES NEWSWIRE SERVICES OR FOR DISSEMINATION IN THE UNITED STATES

TORONTO, April 10, 2018 -- Titan Medical Inc. (the 'Company'') (TSX:TMD) (OTCQB:TITXF), a medical device company focused on the design, development and commercialization of a robotic surgical system for application in minimally invasive surgery ("MIS"), is pleased to announce the closing of its previously announced public offering (the "Offering") pursuant to an agency agreement dated April 3, 2018 between the Company and Bloom Burton Securities Inc. (the 'Agent'').

The Company completed the closing of the Offering on April 10, 2018 and issued 33,799,961 units (the 'Units') for gross proceeds of CDN \$10,139,988.30. Each Unit was issued at a price of CDN \$0.30 per Unit and is comprised of one common share of the Company (a "Common Share") and one warrant entitling the holder to purchase one Common Share at a price of CDN \$0.35 until expiry on April 10, 2023. The net proceeds of the Offering will be used to fund continued development work in connection with the Company's SPORT Surgical System, as well as for working capital and other general corporate purposes.

The Common Shares sold and issued in connection with the closing were listed and posted for trading on the Toronto Stock Exchange (the **TSX**") under the symbol TMD at the opening on April 10, 2018.

The Units were qualified for sale by way of a prospectus dated April 3, 2018 (the 'Prospectus'') filed by the Company in the Provinces of British Columbia, Alberta and Ontario.

## About Titan Medical Inc.

Titan Medical Inc. is a Canadian public company focused on research and development through to the planned commercialization of computer-assisted robotic surgical technologies for application in MIS. The Company is currently developing the SPORT Surgical System, a single-port robotic surgical system. The SPORT Surgical System is comprised of a surgeon-controlled patient cart that includes a 3D high definition vision system and multi-articulating instruments for performing MIS procedures, and a surgeon workstation that provides the surgeon with an advanced ergonomic interface to the patient cart and a 3D endoscopic view inside the patient's body during MIS procedures. With the SPORT Surgical System, the Company aims to pursue a broad set of surgical indications, including general abdominal, gynecologic and urologic procedures.

For more information, please visit the Company's website atwww.titanmedicalinc.com.

### **Forward-Looking Statements**

This news release contains "forward-looking statements" which reflect the current expectations of management of the Company's future growth, results of operations, performance and business prospects and opportunities. Wherever possible, words such as "may", "would", "could", "will", "anticipate", "believe", "plan", "expect", "intend", "estimate", "potential for" and similar expressions have been used to identify these forward-looking statements. These statements, including statements with respect to the use of the net proceeds of the Offering, reflect management's current beliefs with respect to future events and are based on information currently available to management. Forward-looking statements involve significant risks, uncertainties and assumptions. Many factors could cause the Company's actual results, performance or achievements to be materially different from any future results, performance or achievements that may be expressed or implied by such forward-looking statements, including, without limitation, those listed in the "Risk Factors" section of the Company's Annual Information Form dated March 31, 2018 and in the Prospectus (which may be viewed at <u>www.sedar.com</u>). Should one or more of these risks or uncertainties materialize, or should assumptions underlying the forward looking statements prove incorrect, actual results, performance, or achievements may vary materially from those expressed or implied by the forward-looking statements contained in this news release. These factors should be considered carefully, and prospective investors should not place undue reliance on the forward-looking statements. Although the forward-looking statements contained in the news release are based upon what management currently believes to be reasonable assumptions, the Company cannot assure prospective investors that actual results, performance or achievements will be consistent with these forward-looking statements.

### **U.S. Securities Law Caution**

The securities described herein have not been, and will not be, registered under the United States Securities Act of 1933, as amended (the 'U.S. Securities Act"), or any state securities laws, and accordingly, may not be offered or sold to, or for the account or benefit of, persons in the United States or "U.S. persons," as such term is defined in Regulation S promulgated under the U.S. Securities Act ("U.S. Persons"), except in compliance with the registration requirements of the U.S. Securities Act and applicable state securities requirements or pursuant to exemptions therefrom. This press release does not constitute an offer to sell or a solicitation of an offer to buy any of the Company's securities to, or for the account or benefit of, persons in the United States or U.S. Persons.

# **Contact Information**

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or

-

Bruce Voss (310) 691-7100 bvoss@lhai.com

# WARRANT INDENTURE

Providing for the Issue of Common Share Purchase Warrants

BETWEEN

# TITAN MEDICAL INC.

- and -

# COMPUTERSHARE TRUST COMPANY OF CANADA

Dated as of April 10, 2018

| ARTICLE | I INTERPRETATION                                    | 1  |
|---------|-----------------------------------------------------|----|
| 1.1     | Definitions                                         | 1  |
| 1.2     | Number and Gender                                   | 7  |
| 1.3     | Interpretation Not Affected by Headings, Etc        | 7  |
| 1.4     | Day Not a Business Day                              | 7  |
| 1.5     | Governing Law                                       | 7  |
| 1.6     | Currency                                            | 7  |
| 1.7     | Meaning of "Outstanding"                            | 7  |
| 1.8     | Severability                                        | 7  |
| 1.9     | Statutory References                                | 7  |
| ARTICLE | II ISSUE OF WARRANTS                                | 8  |
| 2.1     | Issue of Warrants                                   | 8  |
| 2.2     | Form and Terms of Warrants                          | 8  |
| 2.3     | Issue in Substitution for Lost Warrant Certificates | 9  |
| 2.4     | Non-Certificated Deposit                            | 9  |
| 2.5     | Warrantholder not a Shareholder                     | 11 |
| 2.6     | Warrants to Rank Pari Passu                         | 12 |
| 2.7     | Signing of Warrant Certificates                     | 12 |
| 2.8     | Certification by the Warrant Agent                  | 12 |
| 2.9     | Legended Warrant Certificates                       | 12 |
| 2.10    | Copy of Indenture                                   | 14 |
| ARTICLE | III EXCHANGE AND OWNERSHIP OF WARRANTS; NOTICES     | 15 |
| 3.1     | Exchange of Warrant Certificates                    | 15 |
| 3.2     | Registration of Warrants                            | 15 |
| 3.3     | Transfer of Warrants                                | 16 |
| 3.4     | Ownership of Certificates                           | 17 |
| 3.5     | Evidence of Ownership                               | 18 |
| 3.6     | Notices                                             | 18 |
| ARTICLE | IV EXERCISE OF WARRANTS                             | 18 |
| 4.1     | Method of Exercise of Warrants                      | 18 |
| 4.2     | Effect of Exercise of Warrants                      | 20 |
| 4.3     | Subscription for Less than Entitlement              | 21 |

| 4.4        | No Fractional Common Shares                                                                                       | 22       |
|------------|-------------------------------------------------------------------------------------------------------------------|----------|
| 4.5        | Expiration of Warrant Certificates                                                                                | 22       |
| 4.6        | Cancellation of Surrendered Warrants                                                                              | 22       |
| 4.7        | Accounting and Recording                                                                                          | 22       |
| 4.8        | Prohibition on Exercise by U.S. Persons; Exception                                                                | 23       |
| ARTICLE V  | ADJUSTMENT OF SUBSCRIPTION RIGHTS AND EXERCISE PRICE .                                                            | 24       |
| 5.1        | Adjustment of Exercise Price and Number of Common Shares Purchasable Upon Exercise                                | 24       |
| 5.2        | Rules Regarding Calculation of Adjustment of Exercise Price and Number of Common Shares Purchasable Upon Exercise | 29       |
| 5.3        | Postponement of Subscription                                                                                      | 32       |
| 5.4        | Notice of Adjustment of Exercise Price and Number of Common Shares Purchasable Upon Exercise                      | 32       |
| ARTICLE VI | PURCHASES BY THE COMPANY                                                                                          | 33       |
| 6.1        | Purchases of Warrants for Cancellation                                                                            | 33       |
| 6.2        | Optional Purchases by the Company                                                                                 | 33<br>33 |
| ARTICLE VI | ARTICLE VII COVENANTS OF THE COMPANY                                                                              |          |
| 7.1        | Covenants of the Company                                                                                          | 33       |
| 7.2        | Warrant Agent's Remuneration and Expenses                                                                         | 35       |
| 7.3        | Performance of Covenants by Warrant Agent                                                                         | 35       |
| 7.4        | Securities Filings                                                                                                | 35       |
| 7.5        | Certificates of No Default                                                                                        | 35       |
| ARTICLE VI | II ENFORCEMENT                                                                                                    | 36       |
| 8.1        | Suits by Warrantholders                                                                                           | 36       |
| 8.2        | Limitation of Liability                                                                                           | 37       |
| ARTICLE IX | MEETINGS OF WARRANTHOLDERS                                                                                        | 38       |
| 9.1        | Right to Convene Meetings                                                                                         | 38       |
| 9.2        | Notice                                                                                                            | 38       |
| 9.3        | Chairman                                                                                                          | 38       |
| 9.4        | Quorum                                                                                                            | 38       |
| 9.5        | Power to Adjourn                                                                                                  | 39       |
| 9.6        | Show of Hands                                                                                                     | 39       |
| 9.7        | Poll and Voting                                                                                                   | 39       |
| 9.8        | Regulations                                                                                                       | 40       |
| 9.9        | Company, Warrant Agent and Warrantholders May be Represented                                                      | 40       |

| 9.10        | Powers Exercisable by Extraordinary Resolution             | 41 |
|-------------|------------------------------------------------------------|----|
| 9.11        | Meaning of Extraordinary Resolution                        | 42 |
| 9.12        | Powers Cumulative                                          | 42 |
| 9.13        | Minutes                                                    | 43 |
| 9.14        | Instruments in Writing                                     | 43 |
| 9.15        | Binding Effect of Resolutions                              | 43 |
| 9.16        | Holdings by Company Disregarded                            | 43 |
| ARTICLE X S | SUPPLEMENTAL INDENTURES                                    | 44 |
| 10.1        | Provision for Supplemental Indentures for Certain Purposes | 44 |
| 10.2        | Successor Companies                                        | 45 |
| ARTICLE XI  | CONCERNING THE WARRANT AGENT                               | 45 |
| 11.1        | Indenture Legislation                                      | 45 |
| 11.2        | Rights and Duties of Warrant Agent                         | 45 |
| 11.3        | Evidence, Experts and Advisers                             | 46 |
| 11.4        | Action by Warrant Agent to Protect Interest                | 47 |
| 11.5        | Warrant Agent not Required to Give Security                | 47 |
| 11.6        | Protection of Warrant Agent                                | 47 |
| 11.7        | Replacement of Warrant Agent; Successor by Merger          | 48 |
| 11.8        | Conflict of Interest                                       | 49 |
| 11.9        | Warrant Agent Not to be Appointed Receiver                 | 49 |
| 11.10       | Payments by Warrant Agent                                  | 49 |
| 11.11       | Deposit of Securities                                      | 49 |
| 11.12       | Act, Error, Omission etc                                   | 50 |
| 11.13       | Indemnification                                            | 50 |
| 11.14       | Notice                                                     | 50 |
| 11.15       | Reliance by the Warrant Agent                              | 50 |
| 11.16       | Privacy                                                    | 51 |
| 11.17       | Anti-Money Laundering                                      | 51 |
| 11.18       | Force Majeure                                              | 52 |
|             | I ACCEPTANCE OF TRUSTS BY WARRANT AGENT                    | 52 |
| 12.1        | Appointment and Acceptance of Functions                    | 52 |
| ARTICLE XI  |                                                            | 52 |
| 13.1        | Notice to the Company and the Warrant Agent                | 52 |
| 13.2        | Time of the Essence                                        | 53 |
|             |                                                            |    |

| 13.3             | Counterparts and Formal Date                                                                        | 53 |
|------------------|-----------------------------------------------------------------------------------------------------|----|
| 13.4             | Discretion of Directors                                                                             | 54 |
| 13.5             | Satisfaction and Discharge of Indenture                                                             | 54 |
| 13.6             | Provisions of Indenture and Warrant Certificates for the Sole Benefit of Parties and Warrantholders | 54 |
| 13.7             | Common Shares or Warrants Owned by the Company or its Subsidiaries Certificates to be Provided      | 54 |
| Schedule "A" For | m of Warrant Certificate                                                                            | 1  |
| Schedule "B" For | m of Declaration For Removal of U.S. Legend                                                         | 1  |
|                  |                                                                                                     |    |

# THIS WARRANT INDENTURE dated as of the 10<sup>th</sup> day of April, 2018.

## **BETWEEN:**

TITAN MEDICAL INC., a corporation existing under the laws of the Province of Ontario

(hereinafter called the "Company")

- and -

# COMPUTERSHARE TRUST COMPANY OF CANADA, a trust company licensed to carry on business in all Provinces in Canada

(hereinafter called the "Warrant Agent")

WHEREAS the Company proposes to issue and sell up to 57,500,000 Warrants (as hereinafter defined) pursuant to the Prospectus (as hereinafter defined) and this Indenture;

AND WHEREAS pursuant to this Indenture, each Warrant shall entitle the registered holder thereof to purchase one Common Share (as hereinafter defined) (subject to adjustment as herein provided) at the price and upon the terms and conditions herein set forth;

AND WHEREAS for such purpose the Company deems it necessary to create and issue Warrants constituted and issued in the manner hereinafter appearing and the Warrants shall be represented solely by Warrant Certificates (as hereinafter defined) issued under this Indenture;

AND WHEREAS all things necessary have been done and performed to make the Warrants and the Warrant Certificates (when certified by the Warrant Agent and issued as provided for in this Indenture) legal, valid and binding upon the Company with the benefits of and subject to the terms of this Indenture;

AND WHEREAS the representations and statements of fact contained in the above recitals are those of the Company and not of the Warrant Agent;

NOW THEREFORE THIS INDENTURE WITNESSES that for good and valuable consideration mutually given and received, the receipt and sufficiency of which is hereby acknowledged, it is hereby agreed and declared as follows:

#### ARTICLE I INTERPRETATION

### 1.1 Definitions

In this Indenture, unless there is something in the subject matter or context inconsistent therewith, the terms defined in this Section or elsewhere herein shall have the respective meanings specified in this Section or elsewhere herein:

- (a) "Affiliate" has the meaning ascribed thereto in the Securities Act (Ontario), as amended or replaced from time to time;
- (b) "Agent" means Bloom Burton Securities Inc.;
- (c) "Authenticated" means (a) with respect to the issuance of a Warrant Certificate, one which has been duly signed by the Corporation and authenticated by manual signature of an authorized officer of the Warrant Agent, (b) with respect to the issuance of an Uncertificated Warrant, one in respect of which the Warrant Agent has completed all Internal Procedures such that the particulars of such Uncertificated Warrant as required by Section 2.9 are entered in the register of Warrantholders, "Authenticate", "Authenticating" and "Authentication" have the appropriate correlative meanings;
- (d) "Business Day" means a day which is not Saturday or Sunday or a statutory holiday in the City of Toronto or a day on which the principal office of the Warrant Agent in the City of Toronto is closed;
- (e) "Beneficial Owner" means a person that has a beneficial interest in the Warrant that is represented by a Warrant Certificate or Uncertificated Warrant registered in the name of CDS or its nominee, the purposes of being held by or on behalf of CDS as custodians for CDS Participants;
- (f) "Capital Reorganization" has the meaning attributed thereto in subsection 5.1(d);
- (g) "CDS" or the "Depository" means CDS Clearing and Depository Services Inc. or its nominee;
- (h) "CDS Participant" means a broker, dealer, bank or other financial institution or other person for whom, from time to time, CDS effects book entries for the Warrants deposited with CDS;
- (i) "Closing Date" has the meaning ascribed to such term in the Prospectus;
- (j) "Common Shares" means the common shares in the capital of the Company as such shares exist at the close of business on the date hereof and, in the event that there shall occur a change in respect of or affecting the Common Shares referred to in Section 5.1 (whether or not such change shall result in an adjustment in the Exercise Price), the term "Common Shares" shall mean the shares, other securities or other property which a Warrantholder is entitled to purchase upon the exercise of Warrants resulting from such change;
- (k) "Common Share Reorganization" has the meaning attributed thereto in subsection 5.1(a);
- (1) "Company" means Titan Medical Inc., a corporation existing under the laws of the Province of Ontario, and its lawful successors from time to time;

- (m) "Company's Auditors" means the chartered accountant or firm of chartered accountants duly appointed as auditor or auditors of the Company from time to time;
- (n) "Confirmation" means a confirmation sent by CDS to the Warrant Agent in connection with the exercise of a Warrant by a Beneficial Owner through a CDS Participant;
- (o) "Counsel" means a barrister or solicitor (who may be an employee of the Company) or a firm of barristers and solicitors (who may be counsel to the Company), in both cases acceptable to the Warrant Agent, acting reasonably;
- (p) "Court" has the meaning attributed thereto in subsection 11.7(1);
- (q) "Current Market Price" at any date, means the volume weighted average price per share at which the Common Shares have traded:
  - (i) on the TSX;
  - (ii) if the Common Shares are not listed on the TSX, on any stock exchange upon which the Common Shares are listed as may be selected for this purpose by the directors, acting reasonably and in good faith; or
  - (iii) if the Common Shares are not listed on any stock exchange, on any over-the- counter market;

during the 20 consecutive trading days (on each of which at least 500 Common Shares are traded in board lots) ending the second trading day before such date and the weighted average price shall be determined by dividing the aggregate sale price of all Common Shares sold in board lots on the exchange or market, as the case may be, during such 20 consecutive trading days by the number of Common Shares sold, or if not traded on any recognized market or exchange, as determined by the directors of the Company acting reasonably;

- (r) "Date of Issue" for a particular Warrant means the date on which the Warrant is actually issued by or on behalf of the Company;
- (s) "Director" means a director of the Company for the time being, and, unless otherwise specified herein, reference to "action by the Directors" means action by the Directors of the Company as a board, or whenever duly empowered, action by any committee of such board;
- (t) "Dividend Paid in the Ordinary Course" means a dividend paid on the Common Shares in any fiscal year of the Company in cash, provided that the aggregate amount of such dividends does not in such fiscal year exceed 5% of the Exercise Price, and for such purpose the amount of any dividend paid in shares shall be the aggregate stated capital of such shares, and the amount of any dividend paid in other than cash or shares shall be the fair market value of such dividend as determined by a resolution passed by the Board of Directors of the Company, subject, if applicable, to the prior consent of any stock exchange or any other over-the-counter market on which the Common Shares are traded;

- (u) "Exercise Date" with respect to any Warrant means the date on which the Warrant Certificate representing such Warrant is surrendered for exercise in accordance with the provisions of Article IV;
- (v) "Exercise Period" means the period commencing on the time of issue on the Date of Issue and ending at the Time of Expiry;
- (w) "Exercise Price" means a price per Common Share of C\$0.35 unless such price shall have been adjusted in accordance with the provisions of Section 5.1, in which case it shall mean such adjusted price in effect at such time;
- (x) "Extraordinary Resolution" has the meaning attributed thereto in Section 9.11;
- (y) "Filing Jurisdiction" means any of British Columbia, Alberta and Ontario;
- (z) "Institutional Accredited Investor" means an institutional "accredited investor" within the meaning of Rule 501(a)(1), (2), (3) or (7) of Regulation D;
- (aa) "Internal Procedures" means in respect of the making of any one or more entries to, changes in or deletions of any one or more entries in the register at any time (including without limitation, original issuance or registration of transfer of ownership) the minimum number of the Warrant Agent's internal procedures customary at such time for the entry, change or deletion made to be complete under the operating procedures followed at the time by the Warrant Agent, it being understood that neither preparation and issuance shall constitute part of such procedures for any purpose of this definition;
- (bb) "Offering" has the meaning ascribed to such term in the Prospectus;
- (cc) "Offshore Transaction" means "offshore transaction" as that term is defined in Regulation S;
- (dd) "Person" means an individual, a corporation, a partnership, a syndicate, a trustee or any unincorporated organization and words importing persons are intended to have a similarly extended meaning;
- (ee) "Prospectus" means the final short form prospectus dated April 3, 2018;
- (ff) "Qualified Institutional Buyer" means a "qualified institutional buyer" within the meaning of Rule 144A under the U.S. Securities Act;
- (gg) "Regulation D" means Regulation D adopted by the SEC under the U.S. Securities Act;
- (hh) "Regulation S" means Regulation S adopted by the SEC under the U.S. Securities Act;
- (ii) "**Rights Offering**" has the meaning attributed thereto in subsection 5.1(b);
- (jj) "Rights Period" has the meaning attributed thereto in subsection 5.1(b);
- (kk) "SEC" means the United States Securities and Exchange Commission;

- (11) "Securities" means the Common Shares and Warrants;
- (mm) "Securities Laws" means, collectively, the applicable securities laws of the Filing Jurisdiction, the regulations, rules, rulings and orders made thereunder, the applicable published policy statements issued by the applicable securities commissions thereunder, and the securities legislation and published policies of each Filing Jurisdiction;
- (nn) "Shareholder" means a holder of record of one or more Common Shares;
- (oo) "Special Distribution" has the meaning attributed thereto in subsection 5.1(c);
- (pp) "Subsidiary of the Company" means a corporation of which voting securities carrying a majority of the votes attached to all voting securities are held, directly or indirectly other than by way of security only, by or for the benefit of the Company, the Company and one or more subsidiaries thereof, or one or more subsidiaries of the Company; and, as used in this definition, voting securities means securities of a class or series or classes or series carrying a voting right to elect directors under all circumstances provided that, for the purposes hereof, securities which only carry the right to vote conditionally on the happening of an event shall not be considered voting securities whether or not such event shall have happened nor shall any securities be deemed to cease to be voting securities solely by reason of a right to vote accruing to securities of another class or series or classes or series or series by reason of such event;
- (qq) "this Warrant Indenture", "this Indenture", "herein", "hereby", and similar expressions mean and refer to this Indenture and any indenture, deed or instrument supplemental or ancillary hereto; and the expressions "Article", "Section", and "subsection" followed by a number mean and refer to the specified Article, Section or subsection of this Indenture;
- (rr) "Time of Expiry" means 5:00 p.m. (Toronto time) on April 10, 2023 (being the date that is 60 months after the date of this Indenture);
- (ss) "TSX" means the Toronto Stock Exchange;
- (tt) "Uncertificated Warrant" means any Warrant which is not issued as part of a Warrant Certificate;
- (uu) "Unit" has the meaning ascribed to such term in the Prospectus;
- (vv) "United States" means the United States of America as that term is defined in Regulation S;
- (ww) "U.S. Exchange Act" means the United States Securities Exchange Act of 1934, as amended;
- (xx) "U.S. Person" means a "U.S. person" as that term is defined in Regulation S;

- (yy) "U.S. Purchaser" means an original purchaser of Units of which the Warrants comprise a part who was, at the time of purchase, either an Institutional Accredited Investor or a Qualified Institutional Buyer and (a) a U.S. Person, (b) any person purchasing such Units on behalf of, or for the account or benefit of, any U.S. Person or any person in the United States, (c) any person who receives or received an offer to acquire such Units while in the United States, and (d) any person who was in the United States at the time such person's buy order was made or the subscription agreement pursuant to which such Units were acquired was executed or delivered;
- (zz) "U.S. Securities Act' means the United States Securities Act of 1933, as amended;
- (aaa) "U.S. Warrantholder" means any Warrantholder that (a) is a U.S. Person, (b) is in the United States, (c) received an offer to acquire Warrants while in the United States, (d) was in the United States at the time such Warrantholder's buy order was made or such Warrantholder executed or delivered its purchase order for the Warrants, or (e) acquired Warrants in the United States or for the account or benefit of any U.S. Person or Person in the United States;
- (bbb) "Warrant" means each common share purchase warrant of the Company issued or to be issued hereunder entitling the holder thereof to purchase one Common Share for each Warrant upon payment of the Exercise Price; provided that in each case the number and/or class of shares or securities receivable on the exercise of the Warrant may be subject to increase or decrease or change in accordance with the terms and provisions hereof;
- (ccc) "Warrant Agent" means Computershare Trust Company of Canada, or its successors hereunder;
- (ddd) "Warrant Certificate" means a certificate representing one or more Warrants substantially in the form set forth in Schedule "A" hereto or such other form as may be approved by the Company, the Agent and the Warrant Agent. To the extent that the Warrants are in the non-certificated issuer system, then this term shall mean the appropriate evidence of such warrants pursuant to the non-certificated issuer system;
- (eee) "Warrantholders" or "holders" without reference to Common Shares means the Persons whose names are entered for the time being on the register maintained pursuant to Section 3.2(1);
- (fff) "Warrantholders' Request" means an instrument signed in one or more counterparts by Warrantholders entitled to purchase, in the aggregate, not less than 10% of the aggregate number of Warrants then unexercised and outstanding, which requests the Warrant Agent to take some action or proceeding specified therein; and
- (ggg) "written order of the Company", "written request of the Company", "written consent of the Company" and "certificate of the Company" and any other document required to be signed by the Company, means, respectively, a written order, request, consent, certificate or other document signed in the name of the Company by any officer or director and may consist of one or more instruments so executed.

#### - 7 -

### 1.2 Number and Gender

Unless the context otherwise requires, words importing the singular include the plural and vice versa and words importing gender include all genders.

### 1.3 Interpretation Not Affected by Headings, Etc.

The division of this Indenture into Articles, Sections and subsections, the provision of a table of contents and the insertion of headings are for convenience of reference only and shall not affect the construction or interpretation of this Indenture or the Warrant Certificates.

#### 1.4 Day Not a Business Day

In the event that any day on or before which any action is required to be taken hereunder is not a Business Day, then such action shall be required to be taken on or before the requisite time on the next succeeding day that is a Business Day.

#### 1.5 Governing Law

This Indenture and the Warrant Certificates shall be governed by and construed in accordance with the laws of the Province of Ontario and the laws of Canada applicable therein and shall be treated in all respects as Ontario contracts.

#### 1.6 Currency

Except as otherwise specified herein, all dollar amounts herein are expressed in lawful money of Canada.

### 1.7 Meaning of "Outstanding"

Every Warrant represented by a Warrant Certificate countersigned and delivered by the Warrant Agent hereunder shall be deemed to be outstanding until it shall be cancelled or exercised pursuant to Article IV, provided that where a new Warrant Certificate has been issued pursuant to Section 2.3 hereof to replace one which has been mutilated, lost, destroyed or stolen, the Warrants represented by only one of such Warrant Certificates shall be counted for the purpose of determining the aggregate number of Warrants outstanding.

### 1.8 Severability

In the event that any provision hereof shall be determined to be invalid, illegal or unenforceable in any respect, the validity, legality and enforceability of the remainder of such provision and any other provision hereof shall not be affected or impaired thereby.

### 1.9 Statutory References

In this Indenture, unless something in the subject matter or context is inconsistent therewith or unless otherwise herein provided, a reference to any statute is to that statute as now enacted or as the same may from time to time be amended, re-enacted or replaced and includes any regulation made thereunder.

### ARTICLE II ISSUE OF WARRANTS

### 2.1 Issue of Warrants

Up to 57,500,000 Warrants are hereby created and authorized to be issued and certificates evidencing such Warrants as have been issued shall be executed by the Company, certified by or on behalf of the Warrant Agent upon the written order of the Company and delivered in accordance with this Article.

### 2.2 Form and Terms of Warrants

- (1) Subject to subsection 2.2(2), each Warrant authorized to be issued hereunder shall entitle the holder thereof to purchase upon due exercise and upon due execution and endorsement of the subscription form on the Warrant Certificate or other instrument of subscription in such form as the Warrant Agent and/or the Company may from time to time prescribe and upon payment of the Exercise Price in effect on the Exercise Date, one Common Share at any time during the Exercise Period, in accordance with the provisions of this Indenture.
- (2) The number of Common Shares which may be purchased pursuant to the Warrants and the Exercise Price shall be adjusted in the events and in the manner specified in Section 5.1.
- (3) The Warrants may be issued in both certificated and uncertificated form, except that all Warrants originally issued to a U.S. Purchaser (excluding Qualified Institutional Buyers) will be issued in certificated form only. Warrant Certificates for the Warrants shall be substantially in the form attached as Schedule "A" hereto, with such additions, variations and changes as may be required or permitted by the terms of this Indenture, and which may from time to time be agreed upon by the Warrant Agent and the Company, and shall bear such legends and such distinguishing letters and numbers as the Company may, with the approval of the Warrant Agent, prescribe. The Warrant Certificates shall be dated as of the date hereof or on such other Closing Date upon which Warrants shall be issued.
- (4) Subject to subsection 2.2(5), Warrant Certificates shall be issuable in any denomination.
- (5) If a Warrantholder is entitled to a fraction of a Warrant the number of Warrants issued to that Warrantholder shall be rounded down to the nearest whole Warrant.
- (6) The Warrant Certificates may be engraved, lithographed or printed (the expression "printed" including for purposes hereof both original typewritten material as well as mimeographed, mechanically, photographically,photostatically or electronically reproduced, typewritten or other written material), or partly in one form and partly in another, as the Company, with the approval of the Warrant Agent, may determine. No change in the form of the Warrant Certificate shall be required by reason of any adjustment made pursuant to Section 5.1 in the number and/or class of securities or type of securities that may be acquired pursuant to the Warrants.

### 2.3 Issue in Substitution for Lost Warrant Certificates

- (1) In the event that any Warrant Certificates issued and certified under this Indenture shall be mutilated, lost, destroyed or stolen, the Company, subject to applicable law, shall issue and thereupon the Warrant Agent shall certify and deliver, a new certificate of like tenor, and bearing the same legends, as the one mutilated, lost, destroyed or stolen in exchange for and in place of and upon cancellation of such mutilated certificate, or in lieu of and in substitution for such lost, destroyed or stolen certificate, and the substituted certificate shall be in a form approved by the Warrant Agent and shall be entitled to the benefits hereof and shall rank equally in accordance with its terms with all other Warrant Certificates issued or to be issued hereunder.
- (2) The applicant for the issue of a new certificate pursuant to this Section 2.3 shall bear the reasonable cost of the issue thereof and in case of loss, destruction or theft shall, as a condition precedent to the issue thereof, furnish to the Company and to the Warrant Agent such evidence of ownership and of the loss, destruction or theft of the certificate so lost, destroyed or stolen as shall be satisfactory to the Company and to the Warrant Agent in their sole discretion, acting reasonably, and such applicant shall also be required to furnish an indemnity and surety bond in amount and form satisfactory to the Company and the Warrant Agent, each acting reasonably, to save each of them harmless, and shall pay the reasonable expenses, charges and any taxes applicable thereto to the Company and the Warrant Agent in connection therewith.

### 2.4 Non-Certificated Deposit

- (1) Subject to the provisions hereof, at the Company's option, Warrants, other than those issued pursuant to a U.S. Purchaser (excluding Qualified Institutional Buyers) (which will be evidenced in certificated form only bearing the legends set forth in Section 2.9), will be issued and registered in the name of CDS or its nominee and:
  - (A) may be directly deposited by the Warrant Agent to CDS; and
  - (B) shall be identified by the CUSIP/ISIN 88830X314 / CA88830X3141
- (2) If the Company issues Warrants in a non-certificated format, Beneficial Owners of such Warrants registered and deposited with CDS shall not receive Warrant Certificates in definitive form and shall not be considered owners or holders thereof under this Indenture or any supplemental agreement. Beneficial interests in Warrants registered and deposited with CDS will be represented only through the non-certificated inventory system administered by CDS. Transfers of Warrants registered and deposited with CDS between CDS Participants shall occur in accordance with the rules and procedures of CDS. Neither the Company nor the Warrant Agent shall have any responsibility or liability for any aspects of the records relating to or payments made by CDS or its nominee, on account of the beneficial interests in Warrants registered and deposited with CDS. Nothing herein shall prevent the Beneficial Owners of Warrants registered and deposited with CDS from voting such Warrants using duly executed proxies.

- (3) All references herein to actions by, notices given or payments made to Warrantholders shall, where Warrants are held through CDS, refer to actions taken by, or notices given or payments made to, CDS upon instruction from the CDS Participants in accordance with its rules and procedures. For the purposes of any provision hereof requiring or permitting actions with the consent of or at the direction of Warrantholders evidencing a specified percentage of the aggregate Warrants outstanding, such direction or consent may be given by Beneficial Owners acting through CDS and the CDS Participants owning Warrants evidencing the requisite percentage of the Warrants. The rights of a Beneficial Owner whose Warrants are held through CDS shall be exercised only through CDS and the CDS Participants and shall be limited to those established by law and agreements between such Beneficial Owners and CDS and the CDS Participants upon instructions from the CDS for all purposes (including the making of payments) as the authorized representative of the respective Warrants and such dealing with CDS shall constitute satisfaction or performance, as applicable, of their respective obligations hereunder.
- (4) For so long as Warrants are held through CDS, if any notice or other communication is required to be given to Warrantholders, the Warrant Agent will give such notices and communications to CDS.
- (5) If CDS resigns or is removed from its responsibility as Depository and the Warrant Agent is unable or does not wish to locate a qualified successor, CDS shall provide the Warrant Agent with instructions for registration of Warrants in the names and in the amounts specified by CDS and the Company shall issue and the Warrant Agent shall certify and deliver the aggregate number of Warrants then outstanding in the form of definitive Warrant Certificates representing such Warrants.
- (6) Every Warrant Authenticated upon registration of transfer of an Uncertificated Warrant, or in exchange for or in lieu of an Uncertificated Warrant or any portion thereof, whether pursuant to this Section 2.4 or otherwise, shall be Authenticated in the form of, and shall be, an Uncertificated Warrant, unless such Warrant is registered in the name of a person other than the Depository for such Uncertificated Warrant or a nominee thereof.

- (7) The rights of Beneficial Owners who hold securities entitlements in respect of the Warrants through the non-certificated inventory system administered by CDS shall be limited to those established by applicable law and agreements between the Depository and the CDS Participants and between such CDS Participants and the Beneficial Owners who hold securities entitlements in respect of the Warrants through the non-certificated inventory system administered by CDS, and such rights must be exercised through a CDS Participant in accordance with the rules and procedures of the Depository.
- (8) Notwithstanding anything herein to the contrary, neither the Company nor the Warrant Agent nor any agent thereof shall have any responsibility or liability for:
  - (A) the electronic records maintained by the Depository relating to any ownership interests or any other interests in the Warrants or the depository system maintained by the Depository, or payments made on account of any ownership interest or any other interest of any person in any Warrants represented by an electronic position in the non-certificated inventory system administered by CDS (other than the Depository or its nominee);
  - (B) for maintaining, supervising or reviewing any records of the Depository or any CDS Participant relating to any such interest; or
  - (C) any advice or representation made or given by the Depository or those contained herein that relate to the rules and regulations of the Depository or any action to be taken by the Depository on its own direction or at the direction of any CDS Participant.
- (9) The Company may terminate the application of this Section 2.4 in its sole discretion in which case all Warrants shall be evidenced by Warrant Certificates registered in the name of a person other than the Depository.
- (10) Notwithstanding the foregoing, upon request of the Beneficial Owner, through the Depository, the Warrant Agent shall issue a Warrant Certificate in respect of the interest of such Beneficial Owner, in which case the Uncertificated Warrant representing such Warrants shall be reduced accordingly and such Warrants shall be duly registered as directed by the Depository.

## 2.5 Warrantholder not a Shareholder

Nothing in this Indenture or in the holding of a Warrant evidenced by a Warrant Certificate or otherwise, shall be construed as conferring upon a Warrantholder any right or interest whatsoever as a Shareholder of the Company, including, but not limited to, the right to vote at, to receive notice of, or to attend, meetings of shareholders or any other proceedings of the Company, nor entitle the holder to any right or interest in respect thereof except as herein and in the Warrants expressly provided.

### 2.6 Warrants to Rank Pari Passu

All Warrants shall rank pari passu, whatever may be the respective Dates of Issue of the same.

### 2.7 Signing of Warrant Certificates

The Warrant Certificates shall be signed by any one of the directors or officers of the Company and may, but need not, be under the corporate seal of the Company or a reproduction thereof. The signature of any such director or officer may be mechanically reproduced and Warrant Certificates bearing such mechanically reproduced signatures shall be binding upon the Company as if they had been manually signed by such director or officer. Notwithstanding that the person whose manual or mechanically reproduced signature appears on any Warrant Certificate as a director or officer may no longer holds office at the date of issue of the Warrant Certificate or at the date of certification or delivery thereof, any Warrant Certificate signed as aforesaid shall, subject to Section 2.7, be valid and binding upon the Company and the registered holder thereof will be entitled to the benefits of this Indenture.

## 2.8 Certification by the Warrant Agent

- (1) No Warrant Certificate shall be issued or, if issued, shall be valid for any purpose or entitle the registered holder to the benefit hereof or thereof until it has been certified by manual signature by or on behalf of the Warrant Agent, and such certification by the Warrant Agent upon any Warrant Certificate shall be conclusive evidence as against the Company that the Warrant Certificate so certified has been duly issued hereunder and that the holder is entitled to the benefit hereof.
- (2) The certification of the Warrant Agent on Warrant Certificates issued hereunder shall not be construed as a representation or warranty by the Warrant Agent as to the validity of this Indenture or the Warrant Certificates (except the due certification thereof) and the Warrant Agent shall in no respect be liable or answerable for the use made of the Warrant Certificates or any of them or of the consideration therefor nor for any breach by the Company of its covenants herein, except as otherwise specified therein.

### 2.9 Legended Warrant Certificates

- (1) The Warrant Agent understands and acknowledges that the Warrants and Common Shares issuable upon exercise of the Warrants have not been, and will not be, registered under the U.S. Securities Act or the securities laws of any state of the United States.
- (2) Each Warrant Certificate originally issued to a U.S. Purchaser, and all certificates representing Common Shares issued upon exercise of such Warrants, as well as all certificates issued in exchange thereof or in substitution thereof, shall, until such time as the same is no longer required under applicable requirements of the U.S. Securities Act and applicable state securities laws, bear a legend substantially to the following effect:

THE SECURITIES REPRESENTED HEREBY [For Warrants Include: AND THE SECURITIES ISSUABLE UPON EXERCISE HEREOFI HAVE NOT BEEN AND WILL NOT BE REGISTERED UNDER THE UNITED STATES SECURITIES ACT OF 1933, AS AMENDED (THE "U.S. SECURITIES ACT") OR U.S. STATE SECURITIES LAWS. BY PURCHASING OR OTHERWISE HOLDING SUCH SECURITIES, THE HOLDER AGREES FOR THE BENEFIT OF TITAN MEDICAL INC. (THE "CORPORATION") THAT THESE SECURITIES MAY BE OFFERED, SOLD, PLEDGED OR OTHERWISE TRANSFERRED, DIRECTLY OR INDIRECTLY, ONLY (A) TO THE CORPORATION; OR (B) OUTSIDE THE UNITED STATES IN COMPLIANCE WITH RULE 904 OF REGULATION S UNDER THE U.S. SECURITIES ACT, IF AVAILABLE, AND IN COMPLIANCE WITH APPLICABLE LOCAL LAWS AND REGULATIONS; OR (C) IN COMPLIANCE WITH THE EXEMPTION FROM THE REGISTRATION REQUIREMENTS UNDER THE U.S. SECURITIES ACT PROVIDED BY (I) RULE 144 OR (II) RULE 144A THEREUNDER, IF AVAILABLE, AND IN EACH CASE IN ACCORDANCE WITH APPLICABLE U.S. STATE SECURITIES LAWS; OR (D) IN ANOTHER TRANSACTION THAT DOES NOT REQUIRE REGISTRATION UNDER THE U.S. SECURITIES ACT OR ANY APPLICABLE STATE SECURITIES LAWS; OR (E) PURSUANT TO AN EFFECTIVE REGISTRATION STATEMENT UNDER THE U.S. SECURITIES ACT, PROVIDED THAT, IN THE CASE OF TRANSFERS PURSUANT TO (C)(I) OR (D) ABOVE, THE HOLDER HAS, PRIOR TO SUCH TRANSFER, FURNISHED TO THE CORPORATION AN OPINION OF COUNSEL OR OTHER EVIDENCE OF EXEMPTION, IN EITHER CASE REASONABLY SATISFACTORY TO THE CORPORATION. DELIVERY OF THIS CERTIFICATE MAY NOT CONSTITUTE "GOOD DELIVERY" IN SETTLEMENT OF TRANSACTIONS ON STOCK EXCHANGES IN CANADA.

[For Warrants Only: THIS WARRANT AND THE SECURITIES ISSUABLE UPON EXERCISE HEREOF HAVE NOT BEEN REGISTERED UNDER THE UNITED STATES SECURITIES ACT OF 1933, AS AMENDED (THE "U.S. SECURITIES ACT"). THIS WARRANT MAY NOT BE EXERCISED IN THE UNITED STATES OR BY OR ON BEHALF OF A U.S. PERSON OR PERSON IN THE UNITED STATES UNLESS THIS WARRANT AND SHARES ISSUABLE UPON EXERCISE OF THIS WARRANT HAVE BEEN REGISTERED UNDER THE U.S. SECURITIES ACT AND THE APPLICABLE SECURITIES LEGISLATION OF ANY SUCH STATE OR EXEMPTIONS FROM SUCH REGISTRATION REQUIREMENTS ARE AVAILABLE. "UNITED STATES" AND "U.S. PERSON" ARE AS DEFINED BY REGULATION S UNDER THE U.S. SECURITIES ACT.] provided that if, the Securities are being sold in an off-shore transaction and in compliance with the requirements of Rule 904 of Regulation S under the U.S. Securities Act and in compliance with Canadian local laws and regulations, the legend may be removed by providing a declaration to Computershare Trust Company of Canada as registrar and transfer agent for the Securities to the effect substantially in the form attached as Schedule B, together with such other evidence as the Company or the registrar and transfer agent for the Securities may require, which may include an opinion of counsel which the Company shall promptly procure upon the holder's request, to the effect that the transfer may be completed and the legend removed without registration under the U.S. Securities Act and any applicable state securities laws and the Company shall instruct Computershare Trust Company of Canada to remove such legend within three business days of receipt of such declaration; and provided further, that, if any of the Securities are being sold pursuant to clause (C) in the legend above, under the U.S. Securities Act, the legend may be removed by delivery to Computershare Trust Company of Canada of an opinion of recognized standing in form and substance satisfactory to the Company, to the effect that the legend is no longer required under applicable requirements of the U.S. Securities Act or state securities laws

(3) If a Warrant Certificate is tendered for transfer and bears the legend set forth in subsection 2.9(2) hereof, the Warrant Agent or the registrar and transfer agent, as the case may be, shall not register such transfer unless the holder complies with the requirements of the said subsection 2.9(2) hereof.

# 2.10 Copy of Indenture

The Company shall, on the written request of the Warrantholder and without charge, provide the Warrantholder with a copy of this Indenture. A copy of this Indenture will also be available on the Company's profile on www.sedar.com.

# ARTICLE III EXCHANGE AND OWNERSHIP OF WARRANTS; NOTICES

## 3.1 Exchange of Warrant Certificates

- (1) Warrant Certificates entitling Warrantholders to purchase any specified number of Common Shares may, upon compliance with the reasonable requirements of the Warrant Agent, be exchanged for one or more Warrant Certificates in any other authorized denomination bearing the same legends representing in the aggregate an equal number of Warrants as the number of Warrants represented by the Warrant Certificates being exchanged. The Company shall sign all Warrant Certificates necessary to carry out exchanges as aforesaid and such Warrant Certificates shall be certified by or on behalf of the Warrant Agent.
- (2) Warrant Certificates may be exchanged only at the principal transfer office of the Warrant Agent in the City of Toronto, Ontario or at any other place that is designated by the Company with the approval of the Warrant Agent. Any Warrant Certificates tendered for exchange shall be surrendered to the Warrant Agent or its agents and cancelled.
- (3) Except as otherwise herein provided, any Warrant Agent may charge the holder requesting an exchange a reasonable sum for each new Warrant Certificate issued in exchange for Warrant Certificate(s); and payment of such charges and reimbursement of the Warrant Agent or the Company for any and all stamp taxes or governmental or other charges required to be paid shall be made by such holder as a condition precedent to such exchange.

# 3.2 Registration of Warrants

- (1) The Company shall, at all times while any Warrants are outstanding, cause the Warrant Agent and its agents to maintain a register in which will be entered in alphabetical order the names, latest known addresses of the Warrantholders and particulars of the Warrants held by them, and a register of transfers in which shall be entered the particulars of all transfers of Warrants, such registers to be kept by and at the principal transfer office of the Warrant Agent in the City of Toronto.
- (2) At the office of the Warrant Agent during normal business hours, the holder of a Warrant may have such Warrant transferred in accordance with such reasonable requirements as the Warrant Agent may prescribe. The costs of any such transfer registration shall be borne by the transferee or presenter.
- (3) The registers referred to in this Section 3.2 shall at all reasonable times be open for inspection by the Company and by any Warrantholder. The Warrant Agent, when requested in writing so to do by the Company, shall furnish the Company with a list of names and addresses of the Warrantholders showing the number of Warrants held by each Warrantholder.

(4) Once an Uncertificated Warrant has been Authenticated, the information set forth in the register with respect thereto at the time of Authentication may be altered, modified, amended, supplemented or otherwise changed only to reflect exercise or proper instructions to the Warrant Agent from the Warrantholder as provided herein, except that the Warrant Agent may act unilaterally to make purely administrative changes internal to the Warrant Agent and changes to correct errors. Each person who becomes a Warrantholder of an Uncertificated Warrant, by his, her or its acquisition thereof shall be deemed to have irrevocably (i) consented to the foregoing authority of the Warrant Agent to make such minor error corrections and (ii) agreed to pay to the Warrant Agent, promptly upon written demand, the full amount of all loss and expense (including without limitation reasonable legal fees of the Company and the Warrant Agent plus interest, at an appropriate then prevailing rate of interest to the Warrant Agent, sustained by the Company or the Warrant Agent as a proximate result of such error if but only if and only to the extent that such present or former Warrantholder realized any benefit as a result of such error and could reasonably have prevented, forestalled or minimized such loss and expense by prompt reporting of the error or avoidance of accepting benefits thereof whether or not such error is or should have been timely detected and corrected by the Warrant Agent; provided, that no person who is a bona fide purchaser shall have any such obligation to the Company or to the Warrant Agent.

#### 3.3 Transfer of Warrants

- (1) No transfer of a Warrant will be valid unless entered on the register of transfers referred to in subsection 3.2(1), upon surrender to the Warrant Agent of the Warrant Certificate evidencing such Warrant, and a duly completed and executed Transfer Form as attached to the Warrant Certificate executed by the registered holder or his executors, administrators or other legal representatives or his or their attorney duly appointed by an instrument in writing in form and execution satisfactory to the Warrant Agent, and, upon compliance with the conditions herein and such reasonable requirements as the Warrant Agent may prescribe, including compliance with all applicable securities legislation, such transfer will be recorded on the register of transfers by the Warrant Agent. Notwithstanding the foregoing, if the Warrants are Uncertificated Warrants, the provisions of Section 3.2(4) shall apply.
- (2) The transferee of any Warrant will, after surrender to the Warrant Agent of the Warrant Certificate evidencing such Warrant as required by subsection 3.3(1) and upon compliance with all other conditions in respect thereof required by this Indenture or by applicable law, be entitled to be entered on the register of holders referred to in subsection 3.2(1) as the owner of such Warrant free from all equities or rights of set-off or counterclaim between the Company and the transferor or any previous holder of such Warrant, except in respect of equities of which the Company is required to take notice by statute or by order of a court of competent jurisdiction.

- (3) The Company will be entitled, and may direct the Warrant Agent, to refuse to recognize any transfer, or enter the name of any transferee, of any Warrant on the registers referred to in subsection 3.2(1), if such transfer would constitute a violation of the securities laws of any applicable jurisdiction or the rules, regulations or policies of any regulatory authority having jurisdiction. The Warrant Agent is entitled to assume compliance with all applicable laws or regulatory requirements on the issue, exercise or transfer of any Warrant or any Common Shares issuable upon the exercise thereof provided such issue, exercise or transfer is effected in accordance with the terms of this Warrant Indenture.
- (4) If a Warrant Certificate tendered for transfer bears the legend set forth in subsection 2.9(2), the Warrant Agent shall not register such transfer unless the transferor has provided the Warrant Agent with the Warrant Certificate and complies with the requirements of the said subsection 2.9(2).
- (5) If the Warrant Certificate tendered for transfer does not bear the legend set forth in subsection 2.9(2), the Warrant Agent shall not register such transfer unless the transferor has provided the Warrant Agent with the Warrant Certificate and a completed and executed transfer form in the form included in the Warrant Certificate. Notwithstanding the foregoing, the Warrant Agent shall not register such transfer if the Warrant Agent has reason to believe that the transferee is a person in the United States or a U.S. Person or is acquiring the Warrants evidenced thereby for the account or benefit of a person in the United States or a U.S. Person.

# 3.4 Ownership of Certificates

- (1) Except in connection with the registration of Uncertificated Warrants, the Company and the Warrant Agent and their respective agents may deem and treat the holder of any Warrant Certificate as the absolute holder and owner of the Warrants evidenced thereby for all purposes, and the Company and the Warrant Agent shall not be affected by any notice or knowledge to the contrary and, without limiting the foregoing, shall not be bound by notice of any trust or be required to see to the execution thereof.
- (2) Subject to the provisions of this Indenture and applicable law, a Warrantholder shall be entitled to the rights evidenced by such Warrant Certificate free from all equities or rights of set-off or counterclaim between the Company and the original or any intermediate holder thereof and all persons may act accordingly and the receipt by any such holder of the Common Shares obtainable pursuant thereto shall be a good discharge to the Company and the Warrant Agent for the same and neither the Company nor the Warrant Agent shall be bound to inquire into the title of any such holder, except where the Company or the Warrant Agent is required to take notice by statute or by order of a court of competent jurisdiction.

## 3.5 Evidence of Ownership

- (1) Upon receipt of a certificate of any bank, trust company or other depositary satisfactory to the Warrant Agent stating that the Warrants specified therein have been deposited by a named person with such bank, trust company or other depositary and will remain so deposited until the expiry of the period specified therein, the Company and the Warrant Agent may treat the person so named as the owner, and such certificate as sufficient evidence of the ownership by such person of such Warrants during such period, for the purpose of any requisition, direction, consent, instrument or other document to be made, signed or given by the holder of the Warrants so deposited.
- (2) The Company and the Warrant Agent may accept as sufficient evidence of the fact and date of the signing of any requisition, direction, consent, instrument or other document by any person, the signature, as witness, of any officer of any trust company, bank or depositary satisfactory to the Warrant Agent, the certificate of any notary public or other officer authorized to take acknowledgements of deeds to be recorded at the place where such certificate is made, that the person signing acknowledged to him the execution thereof, or a statutory declaration of a witness of such execution.

# 3.6 Notices

Unless herein otherwise expressly provided, any notice to be given hereunder to the Warrantholders shall be deemed to be validly given if such notice is given by personal delivery or first class mail to the attention of the holder at the registered address of the holder recorded in the registers maintained by the Warrant Agent; provided that in the case of notice convening a meeting of the Warrantholders, the Company may require such publication of such notice, in such city or cities, as it may deem necessary for the reasonable protection of the Warrant holders or to comply with any applicable requirement of law or any stock exchange. Any notice so given shall be deemed to have been given on the day of delivery or three (3) Business Days after mailing. In determining under any provision hereof the date when notice of any meeting or other event must be given, the date of giving notice shall be beened to the meeting or other event shall be excluded. For greater certainty, all costs in connection with the giving of notices contemplated by this Section 3.6 shall be borne by the Company.

#### ARTICLE IV EXERCISE OF WARRANTS

## 4.1 Method of Exercise of Warrants

(1) Subject to Section 4.8, upon and subject to the provisions hereof, the registered holder of any Warrant may exercise the rights thereby conferred on him to purchase all or any part of the Common Shares to which such Warrant entitles the holder, by surrendering the Warrant Certificate representing such Warrants to the Warrant Agent during the Exercise Period at its principal transfer office in Toronto, Ontario (or at any other place or places that may be designated by the Company from time to time with the approval of the Warrant Agent), with a duly completed and executed subscription form of the registered holder or his executors, administrators or other legal representative or his attorney duly appointed by an instrument in writing in the form and manner satisfactory to the Warrant Agent, substantially in the form attached to the Warrant Certificate specifying the number of Common Shares subscribed for together with a certified cheque, money order or bank draft in lawful money of Canada payable to or to the order of the Company at par in Toronto, Ontario in an amount equal to the Exercise Price applicable at the time of such surrender in respect of each Common Share subscribed for. A Warrant Certificate with the duly completed and executed subscription form together with the payment of the Exercise Price shall be deemed to be surrendered only upon personal delivery thereof to or, if sent by mail or other means of transmission, upon actual receipt thereof by the Warrant Agent.

(2) No Warrant represented by an Uncertificated Warrant may be exercised unless, prior to such exercise, the Warrantholder of such Warrant shall have taken all other action necessary to exercise such Warrant in accordance with this Indenture and the Internal Procedures. Notwithstanding anything to the contrary contained herein and subject to the Internal Procedures in force from time to time, a Beneficial Owner whose Warrants are represented by an Uncertificated Warrant who desires to exercise his or her Warrants must do so by causing a CDS Participant to deliver to CDS, on behalf of the Beneficial Owner, a written notice of the Beneficial Owner's intention to exercise Warrants in a manner acceptable to CDS. Forthwith upon receipt by CDS of such notice, as well as payment in an amount equal to the product obtained by multiplying the Exercise Price by the number of Common Shares subscribed for, CDS shall deliver to the Warrant Agent a Confirmation. An electronic exercise of Uncertificated Warrants initiated by the CDS Participant shall constitute a representation to both the Company and the Warrant Agent that the beneficial owner at the time of exercise of such Warrants (a) is not in the United States; (b) is not a U.S. Person and is not exercising such Warrants on behalf of a U.S. Person or a person in the United States; (c) did not exercise anoffer to exercise the Warrant in the United States; (e) did not execute or deliver the notice of the owner's intention to exercise such Warrants in the United States; (e) did not execute or deliver the notice of the Uncertificated Warrants, in the CDS Participant thet there of Regulation S under the U.S. Securities Act in connection with such exercise. If the CDS Participant is not able to make or deliver the foregoing representations by initiating the electronic exercise of the Uncertificated Warrants, then such Uncertificated Warrants, then such Uncertificated Warrants and an individually registered Warrant, shall be issued by the Warrant Agent to such Beneficial Own

- (3) Payment by a Beneficial Owner representing the Exercise Price must be provided to the appropriate office of the CDS Participant in a manner acceptable to it. A notice in form acceptable to the CDS Participant and payment from such Beneficial Owner should be provided to the CDS Participant sufficiently in advance so as to permit the CDS Participant to deliver notice and payment to CDS and for CDS in turn to deliver notice and payment to the Warrant Agent prior to Expiry Time. CDS will initiate the exercise by way of the Confirmation and forward the Exercise Price electronically to the Warrant Agent and the Warrant Agent will exercise by issuing to CDS through the non-certified inventory system administered by CDS the Common Shares to which the exercising Beneficial Owner is entitled pursuant to the exercise. Any expense associated with the exercise process will be for the account of the Beneficial Owner exercising the Warrants and/or the CDS Participant exercising the Warrants on its behalf.
- (4) Notwithstanding any provisions of this Warrant Indenture, a beneficial owner may exercise his Warrants or take any actions under this Warrant Indenture in accordance with the rules and procedures of CDS.
- (5) Any subscription referred to in this Section 4.1 shall be signed by the Warrantholder, shall specify the person(s) in whose name such Common Shares are to be issued, the address(es) of such person(s) and the number of Common Shares to be issued to each person, if more than one is so specified. If any of the Common Shares subscribed for are to be issued to (a) person(s) other than the Warrantholder, the signatures set out in the subscription referred to in subsection 4.1(1) shall be guaranteed by a major Canadian chartered bank, or by a medallion signature guaranteed from a member of a recognized Signature Medallion Guarantee Program and the Warrantholder shall pay to the Company all applicable transfer or similar taxes and the Company shall not be required to issue or deliver certificates evidencing Common Shares unless or until such Warrantholder shall have paid to the Company the amount of such tax or shall have established to the satisfaction of the Company that such tax has been paid or that no tax is due.
- (6) If, at the time of exercise of the Warrants, in accordance with the provisions of subsection 3.1(1), there are any trading restrictions on the Common Shares pursuant to applicable securities legislation or stock exchange requirements, the Company shall, on the advice of counsel, endorse any certificates representing the Common Shares to such effect. The Warrant Agent is entitled to assume compliance with all applicable securities legislation unless otherwise notified in writing by the Company.

# 4.2 Effect of Exercise of Warrants

(1) Upon compliance by the Warrantholder with the provisions of Section 4.1, the Common Shares so subscribed for shall be deemed to have been issued and the Person or Persons to whom such Common Shares are to be issued shall be deemed to have become the holder or holders of record of such Common Shares on the Exercise Date unless the share registers maintained by the transfer agent for the Common Shares shall be closed on such date, in which case the Common Shares so subscribed for shall be deemed to have been issued, and such Person or Persons shall be deemed to have become the holder or holders of record of such Common Shares so subscribed for shall be deemed to have been issued, and such Person or Persons shall be deemed to have become the holder or holders of record of such Common Shares on the date on which such registers were reopened and such Common Shares shall be issued at the Exercise Price in effect on the Exercise Date. To the extent the opening of the registers remains within the control of the Warrant Agent, the Company and the Warrant Agent shall cause such registers to be open on Business Days.

- (2) Within three (3) Business Days following the due exercise of a Warrant pursuant to Section 4.1, the Warrant Agent shall deliver to the Company a notice setting forth the particulars of all Warrants exercised, and the persons in whose names the Common Shares are to be issued (as applicable) and the addresses of such holders of the Common Shares.
- (3) Subject to Section 4.1(3), within five (5) Business Days of the due exercise of a Warrant pursuant to Section 4.1, or within (10) Business Days of the due exercise of a Warrant if such exercise would result in a fraction of a Common Share, the Company shall cause its transfer agent to mail to the person in whose name the Common Shares so subscribed for are to be issued, as specified in the subscription completed on the Warrant Certificate, at the address specified in such subscription, a certificate or certificates for the Common Shares to which the Warrantholder is entitled and, if applicable, shall cause the Warrant Agent to mail a Warrant Certificate representing any Warrants not then exercised.
- (4) If at the time of exercise of the Warrants there remain trading restrictions on the Common Shares acquired upon such exercise pursuant to applicable securities legislation or policy of any applicable regulatory body, the Company may, upon the advice of Counsel, endorse any Common Share certificates to such effect. Furthermore, the Company shall, or its Counsel shall, notify the Warrant Agent in writing of any trading restrictions on the Common Shares acquired upon such exercise pursuant to applicable securities legislation or policy of any applicable regulatory body. Unless and until advised in writing by the Company or its Counsel that a specific legend and trading restrictions apply to the Common Shares, the Warrant Agent shall be entitled to assume that no specific legend is required and that there are no trading restrictions on the Common Shares.

#### 4.3 Subscription for Less than Entitlement

The holder of any Warrant Certificate may subscribe for and purchase a whole number of Common Shares that is less than the number that the holder is entitled to purchase pursuant to the surrendered Warrant Certificate. In such event, the holder thereof shall be entitled to receive, without charge except as aforesaid, a new Warrant Certificate in respect of the balance of the Common Shares which such holder was entitled to purchase pursuant to the surrendered Warrant Certificate and which was not then purchased, such new Warrant Certificate to contain the same legend as provided in subsection 2.9(2), if applicable.

# 4.4 No Fractional Common Shares

Notwithstanding anything to the contrary in this Indenture, the Company shall not be required to issue fractional Common Shares in satisfaction of its obligations hereunder. If any fractional interest in a Common Share would, except for the provisions of this Section 4.4, be deliverable upon the exercise of a Warrant, the Company shall in lieu of delivering the fractional Common Shares therefor satisfy the right to receive such fractional interest by payment to the holder of such Warrant of an amount in funds equal (computed in the case of a fraction of a cent to the next lower cent) to the value of the right to acquire such fractional interest on the basis of the Current Market Price at the Exercise Date. The minimum amount for payment pursuant to this Section shall be \$1.00.

#### 4.5 Expiration of Warrant Certificates

After the Time of Expiry, all rights under any Warrant or this Indenture in respect of which the right of subscription and purchase herein and therein provided for shall not theretofore have been exercised shall wholly cease and terminate and such Warrant shall be void and of no effect.

#### 4.6 Cancellation of Surrendered Warrants

All Warrant Certificates surrendered to the Warrant Agent pursuant to the provisions of this Indenture shall be cancelled by the Warrant Agent and the Warrant Agent shall, record the cancellation of such Warrant Certificates on the register of holders maintained by the Warrant Agent pursuant to subsection 3.2(1). The Warrant Agent shall, if requested in writing by the Company, furnish or cause to be furnished to the Company a certificate identifying the Warrant Certificates so cancelled and the number of Common Shares which could have been purchased pursuant to each cancelled Warrant Certificate. All Warrants represented by Warrant Certificates that have been duly cancelled shall be without further force or effect whatsoever.

#### 4.7 Accounting and Recording

- (1) The Warrant Agent shall promptly account to the Company with respect to Warrants exercised and forward to the Company (or into an account or accounts of the Company with the bank or trust company designated by the Company for that purpose) all monies received on the purchase of Common Shares through the exercise of Warrants. All such monies, and any securities or other instruments from time to time received by the Warrant Agent, shall be received in trust for, and shall be segregated and kept apart by the Warrant Agent in trust for, the Company.
- (2) The Warrant Agent shall record the particulars of the Warrant Certificates exercised which shall include the name or names and addresses of the Persons who become holders of Common Shares on exercise and the Exercise Date and Warrant Certificate number.

# - 23 -

## 4.8 Prohibition on Exercise by U.S. Persons; Exception

- (1) Warrants may not be exercised by or on behalf of, or for the account or benefit of, any U.S. Person or any person in the United States unless an exemption is available from the registration requirements of the U.S. Securities Act and applicable state securities laws and the holder of the Warrants has furnished an opinion of counsel of recognized standing in form and substance satisfactory to the Company to such effect; provided that a U.S. Purchaser that purchased the Warrants in the United States will not be required to deliver an opinion of counsel in connection with the exercise of Warrants, provided it provides the certification required in subsection 4.8(2)(b) or 4.8(2)(c) below. The Company shall be entitled to rely upon the registered address of the Warrantholder set forth in such Warrantholder's Form of U.S. Subscription Agreement for Institutional Accredited Investors or Form of Qualified Institutional Buyer Letter attached to the U.S. Placement Memorandum, as applicable, under the Offering for the purchase of Units in determining whether the address is in the United States or the Warrantholder is a U.S. Warrantholder.
- (2) Any holder which exercises any Warrants shall provide/certify substantially as follows, to the Company either:
  - (a) the holder: (a) at the time of exercise of the Warrants is not in the United States; (b) is not a U.S. Person and is not exercising the Warrants on behalf of a U.S. Person; and (c) has in all other aspects complied with the terms of an "offshore transaction" within the meaning of Regulation S under the U.S. Securities Act;
  - (b) the holder: (a) acquired the Warrants directly from the Company pursuant to an executed Form of U.S. Subscription Agreement for Institutional Accredited Investors attached to the U.S. Placement Memorandum under the Offering for the purchase of Units; (b) is exercising the Warrants solely for its own account or for the benefit of a U.S. Person or a person in the United States for whose account such holder acquired the Warrants directly from the Company and for whose account such holder exercises sole investment discretion; and (c) was, and any beneficial purchaser for whose account such holder acquired the Warrants and is exercising the Warrants was, an Institutional Accredited Investor both on the date the Warrants were purchased from the Company and on Exercise Date of the Warrants; or
  - (c) the holder: (a) acquired the Warrants directly from the Company pursuant to an executed Qualified Institutional Buyer Letter for Qualified Institutional Buyers attached to the U.S. Placement Memorandum under the Offering for the purchase of Units; (b) is exercising the Warrants solely for its own account or for the benefit of a U.S. Person or a person in the United States for whose account such holder acquired the Warrants directly from the Company and for whose account such holder exercises sole investment discretion; and (c) was, and any beneficial purchaser for whose account such holder acquired the Warrants was, a Qualified Institutional Buyer both on the date the Warrants were purchased from the Company and on Exercise Date of the Warrants;

- (d) a written opinion of counsel of recognized standing in form and substance satisfactory to the Company to the effect that an exemption from the registration requirements of the U.S. Securities Act and applicable state securities laws is available for the issuance of the Common Shares issuable on exercise of the Warrants.
- (3) No certificates representing Common Shares will be registered or delivered to an address in the United States unless the holder of the Warrant complies with the requirements of paragraphs (b), (c) or (d) of subsection 4.8(2).
- (4) If a Common Share certificate issued with respect to an exercise of Warrants is tendered for transfer and bears the legend set forth in subsection 2.9(2) hereof, the Warrant Agent or the transfer agent, as the case may be, shall not register such transfer unless the holder complies with the requirements of the said subsection 2.9(2).

# ARTICLE V

# ADJUSTMENT OF SUBSCRIPTION RIGHTS AND EXERCISE PRICE

#### 5.1 Adjustment of Exercise Price and Number of Common Shares Purchasable Upon Exercise

Subject to Section 5.2, the Exercise Price and the number of Common Shares purchasable upon exercise of Warrants shall be subject to adjustment from time to time in the events and in the manner provided as follows:

- (a) <u>Common Share Reorganization</u>. If during the Exercise Period the Company shall:
  - (i) issue Common Shares or securities exchangeable for or convertible into Common Shares to holders of all or substantially all of its then outstanding Common Shares by way of stock dividend or other distribution (other than as a Dividend Paid in the Ordinary Course or a distribution of Common Shares upon exercise of the Warrants or pursuant to the exercise of directors, officers or employee stock options granted under stock option plans of the Company), or
  - (ii) subdivide, redivide or change its outstanding Common Shares into a greater number of Common Shares, or
  - (iii) consolidate, reduce or combine its outstanding Common Shares into a lesser number of Common Shares, (any of such events in these paragraphs (i), (ii) and (iii) being a "Common Share Reorganization"), then the Exercise Price shall be adjusted as of the effective date or record date, as the case may be, at which the holders of Common Shares are determined for the purpose of the Common Share Reorganization by multiplying the Exercise Price in effect immediately prior to such effective date or record date by a fraction, the numerator of which shall be the number of Common Shares outstanding on such effective date or record date before giving effect to such Common Share Reorganization and the denominator of which shall be the number of Common Shares outstanding as of the effective date or record date, as the case may be, after giving effect to such Common Shares Reorganization (including, in the case where securities exchangeable for or convertible into Common Shares on such record date or effective date, as the case may be). From and after any adjustment of the Exercise Price pursuant to this subsection 5.1(a), the number of Common Shares purchasable pursuant to this Warrant Certificate shall be adjusted contemporaneously with the adjustment of the Exercise Price by multiplying the number of Common Shares then otherwise purchasable on the exercise thereof by a fraction, the numerator of which shall be the Exercise Price in effect immediately prior to the adjustment and the denominator of which shall be the Exercise Price resulting from such

- (b) <u>Rights Offering</u>. If and whenever during the Exercise Period, the Company shall fix a record date for the issue of rights, options or warrants to all or substantially all of the holders of Common Shares under which such holders are entitled, during a period expiring not more than forty-five (45) days after the record date for such issue ("**Rights Period**"), to subscribe for or purchase Common Shares or securities exchangeable for or convertible into Common Shares at a price per share to the holder (or having a conversion price or exchange price per Share) of less than 95% of the Current Market Price for the Common Shares on such record date (any of such events being called a "**Rights Offering**"), then the Exercise Price shall be adjusted effective immediately after the end of the Rights Period to a price determined by multiplying the Exercise Price in effect immediately prior to the end of the Rights Period by a fraction:
  - (i) the numerator of which shall be the aggregate of:
    - (1) the number of Common Shares outstanding as of the record date for the Rights Offering, and
    - (2) a number determined by dividing either

(a) where the event giving rise to the application of this subsection 5.1(b) was the issue of rights, options or warrants to the holders of Common Shares under which such holders are entitled to subscribe for or purchase additional Common Shares, the product of the number of Common Shares issued or subscribed for during the Rights Period and the price at which such Common Shares are offered,

or, as the case may be,

- (b) where the event giving rise to the application of this subsection 5.1(b) was the issue of rights, options or warrants to the holders of Common Shares under which such holders are entitled to subscribe for or purchase securities exchangeable for or convertible into shares, the product of the exchange or conversion price per share of such securities offered and the number of Common Shares for or into which the securities so offered pursuant to the Rights Offering have been exchanged or converted during the Rights Period,
- by the Current Market Price of the Common Shares as of the record date for the Rights Offering; and
- (ii) the denominator of which shall be the number of Common Shares outstanding after giving effect to the Rights Offering and including the number of Common Shares actually issued or subscribed for during the Rights Period upon exercise of the rights, warrants or options under the Rights Offering or upon the exercise of the exchange or conversion rights contained in such exchangeable or convertible securities under the Rights Offering.

If the holder has exercised any of the Warrants during the period beginning immediately after the record date for a Rights Offering and ending on the last day of the Rights Period, the holder shall, in addition to the Common Shares to which the holder is otherwise entitled upon such exercise in accordance with Article II hereof, be entitled to that number of additional Common Shares equal to the result obtained when the difference, if any, resulting from the subtraction of the Exercise Price as adjusted for such Rights Offering pursuant to this subsection 5.1(b) from the Exercise Price in effect immediately prior to the end of such Rights Offering is multiplied by the number of Common Shares purchased upon exercise of the Warrants held by such holder during such period, and the resulting product is divided by the Exercise Price as adjusted for such Rights Offering pursuant to this subsection 5.1(b) from the subsection 5.1(b); provided that the provisions of subsection 5.4(1) shall be applicable to any fractional interest in a Common Shares shall be deemed to have been issued to the holder immediately following the end of the Rights Period and a certificate for such additional Common Shares shall be delivered to such holder within three (3) Business Days following the end of the Rights Period.

If at any time after the date hereof and prior to the Time of Expiry, any of the events set out in subsection 5.1(b) shall occur and the holder has not exercised any of the Warrants during the Rights Period, and the occurrence of such event results in an adjustment of the Exercise Price pursuant to provisions of this Section 5.1, then the number of Common Shares purchasable pursuant to this Warrant Certificate shall be adjusted contemporaneously with the adjustment of the Exercise Price by multiplying the number of Common Shares then otherwise purchasable on the exercise thereof by a fraction, the numerator of which shall be the Exercise Price in effect immediately prior to the adjustment and the denominator of which shall be the Exercise Price resulting from such adjustment.

- (c) <u>Special Distribution</u>. If and whenever during the Exercise Period, the Company shall issue or distribute to all or to substantially all the holders of the Common Shares:
  - securities of the Company including shares, rights, options or warrants to acquire shares of any class or securities exchangeable for or convertible into or exchangeable into any such shares or cash, property or assets and including evidences of its indebtedness, or
  - (ii) any cash, property or other assets,

and if such issuance or distribution does not constitute Dividends Paid in the Ordinary Course, a Common Share Reorganization or a Rights Offering (any of such non-excluded events being herein called a "**Special Distribution**"), the Exercise Price will be adjusted immediately after such record date so that it will equal the rate determined by multiplying the Exercise Price in effect on such record date by a fraction, of which the numerator shall be the total number of Common Shares outstanding on such record date multiplied by the Current Market Price on the earlier of such record date and the date on which the Company announces its intention to make such distribution, less the aggregate fair market value (as determined by the directors, acting reasonably and in good faith, at the time such distribution is authorized) of such securities, shares or rights, options or warrants or evidences of indebtedness or cash, property or other assets so distributed, and of which the denominator shall be the total number of Common Shares outstanding on such record date hereof and prior to the Time of Expiry, any of the events set out in subsection 5.1(c) shall occur and the occurrence of such event results in an adjustment of the Exercise Price pursuant to provisions of this Section 5.1, then the number of Common Shares purchasable pursuant to this Warrant Certificate shall be adjusted contemporaneously with the adjustment of the Exercise Price by multiplying the number of Common Shares then otherwise purchasable on the exercise Price resulting from such adjustment.

(d) Capital Reorganization. If and whenever during the Exercise Period there shall be a reclassification of Common Shares at any time outstanding or a change or exchange of the Common Shares into other shares or into other securities (other than a Common Share Reorganization), or a consolidation, amalgamation, arrangement or merger of the Company with or into any other corporation or other entity (other than a consolidation, amalgamation, arrangement or merger which does not result in any reclassification of the outstanding Common Shares or a change or exchange of the Common Shares into other securities), or a transfer of the undertaking or assets of the Company as an entirety or substantially as an entirety to another corporation or other entity (any of such events being herein called a "Capital Reorganization"), the holder, where he has not exercised the right of subscription and purchase under this Warrant Certificate prior to the effective date or record date, as the case may be, of such Capital Reorganization, shall be entitled to receive, and shall accept upon the exercise of such right for the same aggregate consideration, in lieu of the number of Common Shares to which such holder was theretofore entitled upon such exercise, the aggregate number of shares, other securities or other property which such holder would have been entitled to receive as a result of such Capital Reorganization if, on the effective date thereof, he had been the registered holder of the number of Common Shares to which such holder was theretofore entitled to subscribe for and purchase; provided however, that no such Capital Reorganization shall be carried into effect unless all necessary steps shall have been taken to so entitle the holder. If determined appropriate by the board of directors of the Company, acting reasonably and in good faith, and subject to the prior written approval of the principal Canadian stock exchange or over-the-counter market on which the Common Shares are then listed or quoted for trading, appropriate adjustments shall be made as a result of any such Capital Reorganization in the application of the provisions of this Indenture with respect the rights and interest thereafter of the Warrantholder to the end that the provisions of this Indenture shall thereafter correspondingly be made applicable as nearly as may reasonably be possible in relation to any shares or other securities or property thereafter deliverable upon the exercise of the Warrants.

(e) If and whenever at any time after the date hereof and prior to the Time of Expiry, the Company takes any action affecting its Common Shares to which the foregoing provisions of this Section 5.1, in the opinion of the board of directors of the Company, acting reasonably and in good faith, are not strictly applicable, or if strictly applicable would not fairly adjust the rights of the Holder against dilution in accordance with the intent and purposes thereof, or would otherwise materially affect the rights of the holder hereunder, then the Company shall execute and deliver to the holder an amendment hereto providing for an adjustment in the application of such provisions so as to adjust such rights as aforesaid in such a manner as the board of directors of the Company may determine to be equitable in the circumstances, acting reasonably and in good faith. The failure of the taking of action by the board of directors of the Company to so provide for any adjustment on or prior to the effective date of any action or occurrence giving rise to such state of facts will be conclusive evidence that the board of directors has determined that it is equitable to make no adjustment in the circumstances.

# 5.2 Rules Regarding Calculation of Adjustment of Exercise Price and Number of Common Shares Purchasable Upon Exercise

For the purposes of Section 5.1:

- (1) The adjustments provided for in Section 5.1 are cumulative, and shall, in the case of adjustments to the Exercise Price be computed to the nearest one-tenth of one cent and shall be made successively whenever an event referred to therein shall occur, subject to the following paragraphs of this Section 5.2.
- (2) No adjustment in the Exercise Price shall be required unless such adjustment would result in a change of at least 1% in the prevailing Exercise Price and no adjustment shall be made in the number of Common Shares purchasable upon exercise of the Warrants unless it would result in a change of at least one one-hundredth of a Common Share; provided, however, that any adjustments which, except for the provisions of this Section 5.2(2) would otherwise have been required to be made, shall be carried forward and taken into account in any subsequent adjustment.
- (3) No adjustment in the Exercise Price or in the number of Common Shares purchasable upon exercise of Warrants shall be made in respect of any event described in Section 5.1, other than the events referred to in subsection 5.1(a)(ii) and 5.1(a)(iii), if the holder is entitled to participate in such event on the same terms, *mutatis mutandis*, as if it had exercised its Warrants prior to or on the effective date or record date of such event. The terms of the participation of the holder in such event shall be subject to any necessary approval of the principal Canadian stock exchange or over-the-counter market on which the Common Shares are then listed or quoted for trading.

- (4) No adjustment in the Exercise Price shall be made pursuant to Section 5.1 in respect of the issue from time to time:
  - (a) of Common Shares purchasable on exercise of the Warrants governed by this Warrant Indenture;
  - (b) of a Dividend Paid in the Ordinary Course of Common Shares to holders of Common Shares who exercise an option or election to receive substantially equivalent dividends in Common Shares in lieu of receiving a cash dividend pursuant to a dividend reinvestment plan or similar plan adopted by the Company in accordance with the requirements of the principal Canadian stock exchange or over-the-counter market on which the Common Shares are then listed or quoted for trading and applicable securities laws;
  - (c) of Common Shares pursuant to any stock option plan, stock purchase plan or benefit plan in force at the date hereof for directors, officers, employees, advisers or consultants of the Company, as such option or plan is amended or superseded from time to time in accordance with the requirements of the principal Canadian stock exchange or over-the-counter market on which the Common Shares are then listed or quoted for trading and applicable securities laws, and such other stock option plan, stock purchase plan or benefit plan as may be adopted by the Company in accordance with the requirements of the principal Canadian stock exchange or over-the-counter market on which the Common Shares are then listed or quoted for trading and applicable securities laws;
  - (d) of Common Shares as payment of interest on any outstanding notes;
  - (e) of the issuance of securities in connection with strategic license agreements and other partnering arrangements of the Company or any subsidiary thereof; or
  - (f) of Common Shares as full or partial consideration in connection with a strategic merger, consolidation or purchase of substantially all of the securities or assets of a corporation or other entity;

and any such issue shall be deemed not to be a Common Share Reorganization or Capital Reorganization.

(5) If a dispute shall at any time arise with respect to adjustments provided for in Section 5.1, such dispute shall, absent manifest error, be conclusively determined by the Company's Auditors, or if they are unable or unwilling to act, by such other firm of independent chartered accountants as may be selected by action by the Directors and any such determination, absent manifest error, shall be binding upon the Company, the Warrant Agent and the Warrantholders. Notwithstanding the foregoing, such determination shall be subject to compliance with all regulatory requirements (including the rules of any stock exchange or over-the-counter market on which the Common Shares are then listed or quoted for trading). Such auditors or accountants shall be provided access to all necessary records of the Company. In the event that any such determination is made, the Company shall deliver a certificate to the Warrant Agent and a notice to the Warrantholders in the manner contemplated in Section 3.6 describing such determination.

- (6) If the Company shall set a record date to determine the holders of the Common Shares for the purpose of entitling them to receive any dividend or distribution or any subscription or purchase rights and shall, thereafter and before the distribution to such shareholders of any such dividend, distribution or subscription or purchase rights, legally abandon its plan to pay or deliver such dividend, distribution or subscription or purchase rights, then no adjustment in the Exercise Price or the number of Common Shares purchasable upon exercise of any Warrant shall be required by reason of the setting of such record date.
- (7) In the absence of a resolution of the board of directors of the Company fixing a record date for any dividend or distribution referred to in subsection 5.1(a)(i) or any Rights Offering or Special Distribution, the Company shall be deemed to have fixed as the record date therefor the date on which such dividend or distribution is effected.
- (8) As a condition precedent to the taking of any action which would require any adjustment in any of the subscription rights pursuant to this Warrant Certificate, including the Exercise Price and the number or class of shares or other securities which are to be received upon the exercise thereof, the Company shall take any corporate action which may, in the opinion of Counsel, be necessary in order that the Company have unissued and reserved in its authorized capital and may validly and legally issue as fully paid and non-assessable all the shares or other securities which the holder of such Warrant Certificate is entitled to receive on the full exercise thereof in accordance with the provisions hereof.
- (9) In case the Company, after the date hereof, shall take any action affecting any Common Shares, other than action described in Section 5.1, which in the opinion of the Directors acting reasonably and in good faith would materially affect the rights of Warrantholders, the Exercise Price and the number or class of shares or other securities which are to be received upon the exercise thereof shall be adjusted in such manner, if any, and at such time, as the Directors, in their sole discretion acting in good faith, may determine to be equitable in the circumstances. Such adjustment to be subject to TSX approval in the event that the Warrants are listed for trading on the TSX. Failure of the taking of action by the Directors so as to provide for an adjustment in the Exercise Price and the number or class of shares or other securities which are to be received upon the exercise thereof prior to the effective date of any action by the Company affecting the Common Shares shall be conclusive evidence that the directors have determined that it is equitable to make no adjustment in the circumstances.

- (10) The Warrant Agent shall be entitled to act and rely on any adjustment calculations by the Company or the Company's Auditors.
- (11) On the happening of each and every such event set out in Section 5.1, the applicable provisions of the Warrant Certificate, including the Exercise Price, shall, *ipso facto*, be deemed to be amended accordingly and the Company shall take all necessary action so as to comply with such provisions as so amended.

# 5.3 Postponement of Subscription

In any case in which the application of Section 5.1 shall require that an adjustment shall be effective immediately after a record date for an event referred to herein, the Company may defer, until the occurrence of such an event:

- (a) issuing to the Warrantholder of any Warrant exercised after such record date and before the occurrence of such event, the additional Common Shares issuable upon such exercise by reason of the adjustment required by such event, and
- (b) delivering to such Warrantholder any distributions declared with respect to such additional Common Shares after such Exercise Date and before such event;

provided, however, that the Company shall deliver or cause to be delivered to such Warrantholder, an appropriate instrument evidencing such Warrantholder's right, upon the occurrence of the event requiring the adjustment, to an adjustment in the Exercise Price and/or the number of Common Shares purchasable on the exercise of any Warrant and to such distributions declared with respect to any additional Common Shares issuable on the exercise of any Warrant.

# 5.4 Notice of Adjustment of Exercise Price and Number of Common Shares Purchasable Upon Exercise

(1) At least ten (10) Business Days prior to the effective date or record date, as the case may be, of any event which requires or might require adjustment in any of the subscription rights pursuant to this Warrant Certificate, including the Exercise Price and the number of Common Shares which are purchasable upon the exercise thereof, the Company shall be required to (a) file with the Warrant Agent a certificate of the Company specifying the particulars of such event (including the record date or the effective date for such event) and, if determinable, the required adjustment and the computation of such adjustment; and (b) give notice to the Warrantholders of the particulars of such event (including the record date or the effective date for such event (including the record date or the effective shall be given in the manner specified in

- (2) In case any adjustment for which such notice has been given is not then determinable, the Company shall promptly after such adjustment is determinable (a) file with the Warrant Agent a computation of such adjustment; and (b) give notice to the Warrantholders of the adjustment. Notice to the Warrantholders shall be given in the manner specified in Section 3.6.
- (3) The Warrant Agent may, absent manifest error, for all purposes of the adjustment act and rely upon the certificate of the Company or of the Company's Auditors submitted to it pursuant to subsection 5.4(1) and on the accuracy of such certificate, calculations and formulas contained therein.

# ARTICLE VI PURCHASES BY THE COMPANY

#### 6.1 Purchases of Warrants for Cancellation

The Company may, at any time and from time to time, purchase Warrants by invitation for tender, by private contract or otherwise (which shall include a purchase through an investment dealer or firm holding membership on a Canadian stock exchange) on such terms as the Company may determine. All Warrants purchased pursuant to the provisions of this Section 6.1 shall be forthwith delivered to, cancelled and destroyed by the Warrant Agent and shall not be reissued.

# 6.2 Optional Purchases by the Company

Subject to applicable law, the Company may from time to time purchase on any stock exchange, in the open market, by private agreement or otherwise any of the Warrants. Any such purchase shall be made at the lowest price or prices at which, in the opinion of the Directors, such Warrants are then obtainable, plus reasonable costs of purchase, and may be made in such manner, from such Persons, and on such other terms as the Company in its sole discretion may determine. The Warrant Certificates representing the Warrants purchased pursuant to this Section 6.2 shall forthwith be delivered to and cancelled by the Warrant Agent.

#### ARTICLE VII COVENANTS OF THE COMPANY

## 7.1 Covenants of the Company

The Company covenants with the Warrant Agent for the benefit of the Warrantholders and the Warrant Agent that so long as any Warrants remain outstanding and may be exercised:

- (a) the Company will at all times maintain its existence and will carry on and conduct its business in a prudent manner in accordance with industry standards and good business practice, and will keep or cause to be kept proper books of account in accordance with applicable law;
- (b) the Company will reserve and keep available a sufficient number of Common Shares for issuance upon the exercise of Warrants issued by the Company;

- (c) the Company will cause the Common Shares from time to time subscribed for pursuant to the Warrants issued by the Company hereunder, in the manner herein provided, to be duly issued in accordance with the Warrants and the terms hereof;
- (d) the Company will cause the certificates representing the Common Shares from time to time to be acquired, pursuant to the Warrants in the manner herein provided, to be duly issued and delivered in accordance with the Warrants and the terms hereof;
- (e) the Company shall make all requisite filings under the Securities Act (Ontario), the Securities Act (British Columbia) or the Securities Act (Alberta) and the regulations made thereunder including those necessary to remain a reporting issuer not in default of any requirement of such acts and regulations;
- (f) the Company shall use all reasonable efforts to maintain the listing of the Common Shares on the TSX (or such other recognized stock exchange as may be agreed upon by the Company and the Agent) and to have the Common Shares issued pursuant to the exercise of the Warrants listed and posted for trading on the TSX (or such other recognized stock exchange as may be agreed upon by the Company and the Agent) as expeditiously as possible;
- (g) all Common Shares that shall be issued by the Company upon exercise of the rights provided for herein shall be issued as fully paid and non-assessable;
- (h) the Company will perform and carry out all of the acts or things to be done by it as provided in this Indenture;
- (i) the Company will promptly advise the Warrant Agent and the Warrantholders in writing of any default under the terms of this Indenture; and
- (j) the Company confirms that as at the date of execution of this Indenture it does not have a class of securities registered pursuant to Section 12 of the U.S. Securities and Exchange Act of 1934, as amended or have a reporting obligation pursuant to Section 15(d) of the Act. The Company covenants that in the event that (i) any class of its securities shall become registered pursuant to Section 12 of the U.S. Securities and Exchange Act or the Company shall incur a reporting obligation pursuant to Section 15(d) of the U.S. Securities and Exchange Act, or the U.S. Securities and Exchange Act or the Company shall be terminated by the Company in accordance with the U.S. Securities and Exchange Act, the Company shall promptly deliver to the Warrant Agent an officers' certificate notifying the Warrant Agent or such registration or termination and such other information as the Warrant Agent may require at the time. The Company acknowledges that the Warrant Agent is relying upon the foregoing covenants in order to meet certain SEC obligations with respect to those clients who are filing with the SEC.

#### 7.2 Warrant Agent's Remuneration and Expenses

The Company covenants that it will pay to the Warrant Agent from time to time reasonable remuneration for its services hereunder and will pay or reimburse the Warrant Agent upon its request for all reasonable expenses, disbursements and advances incurred or made by the Warrant Agent in the administration or execution of the duties hereby created, except any such expense, disbursement or advance as may arise out of or result from the gross negligence, wilful misconduct or fraud of the Warrant Agent. Any amount owing hereunder and remaining unpaid 30 days from the invoice date will bear interest at the then current rate charged by the Warrant Agent against unpaid invoices and shall be payable upon demand. This Section 7.2 shall survive the termination of this Indenture and the removal or resignation of the Warrant Agent.

#### 7.3 Performance of Covenants by Warrant Agent

Subject to Section 11.6, if the Company shall fail to perform any of its covenants contained in this Warrant Indenture and the Company has not rectified such failure within twenty-five (25) Business Days after either giving notice of such default pursuant to subsection 7.1(i) or receiving written notice from the Warrant Agent of such failure, the Warrant Agent may notify the Warrantholders in the manner provided in Section 3.6 of such failure on the part of the Company or, subject to Section 11.1, may itself perform any of the covenants capable of being performed by it, but shall be under no obligation to perform such covenants or to notify the Warrantholders of such performance by it. All reasonable sums expended or advanced by the Warrant Agent in so doing shall be repayable as provided in Section 7.2. No such performance, expenditure or advance by the Warrant Agent shall relieve the Company of any default hereunder or of its continuing obligations under the covenants herein contained.

# 7.4 Securities Filings

- (1) If, in the opinion of Counsel, any filing is required to be made with any governmental or other authority in Canada (including the securities regulatory authorities or any exchange or quotation system upon which any securities of the Company are listed or quoted for trading), or any other step is required before any Common Shares issuable upon the exercise of Warrants by a Warrantholder may properly and legally be issued in Canada, the Company covenants that it will take such action so required at its own expense.
- (2) The Company will give written notice of the issue of Common Shares pursuant to the exercise of Warrants, in such detail as may be required, to each securities administrator in each jurisdiction in which there is legislation requiring the giving of such notice and to the TSX.

#### 7.5 Certificates of No Default

At any time if requested by the Warrant Agent, the Company shall deliver to the Warrant Agent an officers' certificate stating that the Company has complied to the best of its knowledge, in all material respects, with all covenants, conditions or other requirements contained in this Indenture. In the event that the Company has not complied, in all material respects, with all the covenants and conditions contained herein, it will advise the Warrant Agent and the holders of such default as soon as reasonably practicable, specifying the covenant, condition or other requirement which has not been complied with and giving particulars of such non-compliance.

# ARTICLE VIII ENFORCEMENT

#### 8.1 Suits by Warrantholders

- (1) <u>Warrantholders May Not Sue</u>. Except to the extent that the rights of an individual Warrantholder or group of Warrantholders would be prejudiced thereby, no Warrantholder has the right to institute any action or proceeding or to exercise any other remedy authorized hereunder for the purpose of enforcing any right on behalf of the Warrantholders as a whole or for the execution of any trust or power hereunder or for the appointment of a liquidator or receiver or receiver and manager or for a receiving order under the Bankruptcy and Insolvency Act (Canada) or to have the Company wound up or to file or prove a claim in any liquidation or bankruptcy proceedings, unless the Warrant Agent has received a Warrantholders' Request directing it to take the requested action and has been provided with sufficient funds or other security and/or such indemnity satisfactory to the Warrant Agent in respect of the costs, expenses and liabilities that may be incurred by it in so proceeding and the Warrant Agent has failed to act within a reasonable time thereafter. If the Warrant Agent may to therewise, any Warrantholder has any right in any manner whatsoever to effect, disturb or prejudice the rights hereby created by its action or to enforce any right hereunder or under any Warrant, except subject to the conditions and in the manner herein provided. Any money received as a result of a proceeding taken by any Warrantholder on behalf of all the Warrant Agent.
- (2) <u>Warrant Agent not Required to Possess Warrants</u>. All rights of action under this Indenture may be enforced by the Warrant Agent without the possession of any of the Warrants or the production thereof on any trial or other proceedings relative thereto.
- Warrant Agent May Institute Proceedings. The Warrant Agent shall be entitled and empowered, either in its own name or as Warrant Agent of an express trust, or as (3) attorney-in-fact for the Warrantholders, or in any one or more of such capacities, to file such proof of debt, amendment of proof of debt, claim, petition or other document as may be necessary or advisable in order to have the claim of the Warrant Agent and the Warrantholders allowed in any insolvency, bankruptcy, liquidation or other judicial proceedings relative to the Company or its creditors or relative to or affecting its property. The Warrant Agent is hereby irrevocably appointed (and the successive respective Warrantholders by taking and holding the same shall be conclusively deemed to have so appointed the Warrant Agent) the true and lawful attorney-in-fact of the respective Warrantholders with authority to make and file in the respective names of the Warrantholders or on behalf of the Warrantholders as a class, subject to deduction from any such claims of the amounts of any claims filed by any of the Warrantholders themselves if and to the extent permitted hereunder, any proof of debt, amendment of proof of debt, claim, petition or other document in any such proceedings and to receive payment of any sums becoming distributable on account thereof, and to execute any such other papers and documents and to do and perform any and all such acts and things for and on behalf of the Warrantholders. as may be necessary or advisable in the opinion of the Warrant Agent acting and relying on the advice of Counsel, in order to have the respective claims of the Warrant Agent and of the Warrantholders against the Company or its property allowed in any such proceeding, and to receive payment of or on account of such claims; provided, however, that nothing contained in this Indenture shall be deemed to give the Warrant Agent, unless so authorized by Extraordinary Resolution, any right to accept or consent to any plan of reorganization or otherwise by action of any character in such proceeding to waive or change in any way any right of any Warrantholder. The Warrant Agent shall also have the power, but not the obligation, at any time and from time to time to institute and to maintain such suits and proceedings as it may be advised shall be necessary or advisable to preserve and protect its interests and the interests of the Warrantholders. Any such suit or proceeding instituted by the Warrant Agent may be brought in the name of the Warrant Agent as Warrant Agent of an express trust, and any recovery of judgment shall be for the rateable benefit of the Warrantholders subject to the provisions of this Indenture. In any proceeding brought by the Warrant Agent (and also any proceeding in which a declaratory judgment of a court may be sought as to the interpretation or construction of any provision of this Indenture, to which the Warrant Agent shall be a party), the Warrant Agent shall be held to represent all the Warrantholders, and it shall not be necessary to make any Warrantholders parties to any such proceeding.

(4) Subject to the provisions of this Section and otherwise in this Indenture, all or any of the rights conferred upon a Warrantholder by the terms of a Warrant may be enforced by such Warrantholder by appropriate legal proceedings without prejudice to the right which is hereby conferred upon the Warrant Agent to proceed in its own name to enforce each and all of the provisions herein contained for the benefit of all of the Warrantholders from time to time.

## 8.2 Limitation of Liability

The obligations hereunder are not personally binding upon nor shall resort hereunder be had to, the private property of any of the past, present or future Directors or Shareholders of the Company or of any successor corporation (as defined herein) or of any of the past, present or future officers, employees or agents of the Company or of any successor corporation, but only the property of the Company or of any successor corporation shall be bound in respect hereof.

## ARTICLE IX MEETINGS OF WARRANTHOLDERS

#### 9.1 Right to Convene Meetings

The Warrant Agent may at any time and from time to time, and shall on receipt of a written request of the Company or of a Warrantholders' Request and upon receiving sufficient funds and being indemnified to its reasonable satisfaction by the Company or by the Warrantholders signing such Warrantholders' Request against the cost of which may be incurred in connection with the calling and holding of such meeting, convene a meeting of the Warrantholders. In the event of the Warrant Agent failing to so convene a meeting within fifteen (15) Business Days after receipt of such written request of the Company or Warrantholders' Request, funds and indemnity given as aforesaid, the Company or such Warrantholders, as the case may be, may convene such meeting. Every such meeting shall be held in the City of Toronto or at such other place as may be approved or determined by the Warrantholders as a result of the Warrant Agent's failure or refusal to convene the meeting, in which case the meeting shall be held at such place as may be determined by the Company or by the Warrantholders convening the meeting, as the case may be.

## 9.2 Notice

At least twenty-one (21) Business Days prior notice of any meeting of Warrantholders shall be given to the Warrantholders in the manner provided for in Section 3.6 and a copy of such notice shall be sent by mail to the Warrant Agent (unless the meeting has been called by the Warrant Agent) and to the Company (unless the meeting has been called by the Company). Such notice shall state the time when and the place where the meeting is to be held, shall state briefly the general nature of the business to be transacted thereat and shall contain such information as is reasonably necessary to enable the Warrantholders to make a reasoned decision on the matter, but it shall not be necessary for any such notice to set out the terms of any resolution to be proposed nor any of the provisions of this Article IX. The notice convening any such meeting may be signed by an appropriate officer of the Warrantholders convening the meeting.

#### 9.3 Chairman

An individual (who need not be a Warrantholder) nominated in writing by the Warrant Agent shall be chairman of the meeting and if no individual is so nominated, or if the individual so nominated is not present within fifteen minutes from the time fixed for the holding of the meeting, or if such Person is unable or unwilling to act as chairman, the Warrantholders present in person or by proxy shall choose some individual present to be chairman.

#### 9.4 Quorum

Subject to the provisions of Section 9.11, at any meeting of the Warrantholders a quorum shall consist of Warrantholders present in person or by proxy and entitled to purchase at least 25% of the aggregate number of Common Shares which could be purchased pursuant to all the then outstanding Warrants, provided that at least two Persons entitled to vote thereat are personally present (except in the case where there is only one Warrantholder). If a quorum of the Warrantholders shall not be present within thirty minutes from the time fixed for holding any meeting, the meeting, if summoned by the Warrantholders or on a Warrantholders' Request, shall be dissolved; but in any other case the meeting shall be adjourned to the same day in the next week (unless such day is not a Business Day in which case it shall be adjourned to the next following Business Day) at the same time and place and subject to Section 9.11 no notice of the adjournment need be given. Any business may be brought before or dealt with at an adjourned meeting which might have been dealt with at the original meeting in accordance with the notice calling the same. No business shall be transacted at any meeting unless a quorum is present at the commencement of business. At the adjourned meeting the Warrantholders present in person or by proxy shall form a quorum and may transact the business for which the meeting was originally convened, notwithstanding that they may not be entitled to purchase at least 25% of the aggregate number of Common Shares which may be purchased pursuant to all then outstanding Warrants.

# 9.5 Power to Adjourn

The chairman of any meeting at which a quorum of the Warrantholders is present may, with the consent of the meeting, adjourn any such meeting, and no notice of such adjournment need be given except such notice, if any, as the meeting may prescribe.

#### 9.6 Show of Hands

Every question submitted to a meeting shall be decided in the first place by a majority of the votes given on a show of hands except that votes on an Extraordinary Resolution shall be given in the manner hereinafter provided. At any such meeting, unless a poll is duly demanded as herein provided, a declaration by the chairman that a resolution has been carried or carried unanimously or by a particular majority or lost or not carried by a particular majority shall be conclusive evidence of the fact.

#### 9.7 Poll and Voting

- (1) On every Extraordinary Resolution, and on any other question submitted to a meeting and after a vote by show of hands when demanded by the chairman or by one or more of the Warrantholders acting in Person or by proxy, a poll shall be taken in such manner as the chairman shall direct. Questions other than those required to be determined by Extraordinary Resolution shall be decided by a majority of votes cast on the poll.
- (2) On a show of hands, every Person who is present and entitled to vote, whether as a Warrantholder or as proxy for one or more absent Warrantholders, or both, shall have one vote. On a poll, each Warrantholder present in person or represented by a proxy duly appointed by instrument in writing shall be entitled to one vote in respect of each Common Share which he is entitled to purchase pursuant to the Warrant or Warrants then held or represented by him. A proxy need not be a Warrantholder. The chairman of any meeting shall be entitled, both on a show of hands and on a poll, to vote in respect of the Warrants, if any, held or represented by him.

# 9.8 Regulations (1) Sub

- (a) for the deposit of voting certificates and instruments appointing proxies at such place and time as the Warrant Agent, the Company or the Warrantholders convening the meeting, as the case may be, may in the notice convening the meeting direct;
- (b) for the deposit of voting certificates and instruments appointing proxies at some approved place or places other than the place at which the meeting is to be held and enabling particulars of such instruments appointing proxies to be mailed, delivered or sent by facsimile transmission before the meeting to the Company or to the Warrant Agent at the place where the same is to be held and for the voting of proxies so deposited as though the instruments themselves were produced at the meeting;
- (c) for the form of the voting certificates and instrument of proxy and the manner in which the form of proxy may be executed; and
- (d) generally for the calling of meetings of Warrantholders and the conduct of business thereat including setting a record date for Warrantholders entitled to receive notice of or to vote at such meeting.
- (2) Any regulations so made shall be binding and effective and the votes given in accordance therewith shall be valid and shall be counted. Save as such regulations may provide, or as may be expressly provided for herein the only Persons who shall be recognized at any meeting as a Warrantholder, or be entitled to vote or be present at the meeting in respect thereof (subject to Section 9.9) shall be Warrantholders or Persons holding voting certificates or proxies of Warrantholders.

# 9.9 Company, Warrant Agent and Warrantholders May be Represented

The Company and the Warrant Agent, by their respective directors, officers and employees, and the Counsel for the Company, for the Warrant Agent and for any Warrantholder may attend any meeting of the Warrantholders, but shall have no vote as such, except in their capacity as Warrantholders.

#### 9.10 Powers Exercisable by Extraordinary Resolution

In addition to all other powers conferred upon them by any other provisions of this Indenture or by law, the Warrantholders at a meeting shall have the power, exercisable from time to time by Extraordinary Resolution, subject to applicable law and any regulatory approval:

- (a) to agree to any modification, abrogation, alteration, compromise or arrangement of the rights of Warrantholders or (with the consent of the Warrant Agent, such consent not to be unreasonably withheld) the Warrant Agent in its capacity as Warrant Agent hereunder or on behalf of the Warrantholders against the Company whether such rights arise under this Indenture, the Warrant Certificate or otherwise, provided that following such action the rights of the Warrantholders or any individual Warrantholder shall not exceed the rights of the Warrantholders hereunder, or otherwise result in an increase of the obligations and liabilities of the Company hereunder;
- (b) to amend, alter or repeal any Extraordinary Resolution previously passed or sanctioned by the Warrantholders;
- (c) to direct or to authorize the Warrant Agent, subject to its prior indemnification pursuant to subsection 11.1(2), to enforce any of the covenants on the part of the Company contained in this Indenture or the Warrant Certificates or to enforce any of the rights of the Warrantholders in any manner specified in such Extraordinary Resolution or to refrain from enforcing any such covenant or right;
- (d) to waive, and to direct the Warrant Agent to waive, any default on the part of the Company in complying with any provisions of this Indenture or the Warrant Certificates either unconditionally or upon any conditions specified in such Extraordinary Resolution;
- (e) to restrain any Warrantholder from taking or instituting any suit, action or proceeding against the Company for the enforcement of any of the covenants on the part of the Company contained in this Indenture or the Warrant Certificates or to enforce any of the rights of the Warrantholders as set out in this Indenture;
- (f) to assent to a compromise or arrangement with a creditor or creditors or a class or classes of creditors, whether secured or otherwise, and with holders of any shares or other securities of the Company;
- (g) to direct any Warrantholder who, as such, has brought any suit, action or proceeding to stay or to discontinue or otherwise to deal with the same upon payment of the costs, charges and expenses reasonably and properly incurred by such Warrantholder in connection therewith; and
- (h) to remove the Warrant Agent and appoint a successor warrant agent in the manner specified in Section 11.7 hereof.

## - 42 -

#### 9.11 Meaning of Extraordinary Resolution

- (1) The expression "Extraordinary Resolution" when used in this Indenture means, subject as hereinafter provided in this Section 9.11 and in Section 9.14, a resolution (i) passed at a meeting of the holders of Warrants duly convened for that purpose and held in accordance with the provisions of this Article IX at which there are holders of Warrants present in person or represented by proxy representing at least 25% of the aggregate number of all the then outstanding Warrants and passed by the affirmative vote of Warrants representing not less than 66 2/3% of the aggregate number of all the then outstanding Warrants represented at the meeting and voted on the poll upon such resolution; or (ii) adopted by an instrument in writing signed by the holders of Warrants representing not less than 66 2/3% percent of the aggregate number of all the then outstanding Warrants.
- (2) If, at any meeting called for the purpose of passing an Extraordinary Resolution, Warrantholders entitled to purchase at least 25% of the aggregate number of all the then outstanding Warrants are not present in person or by proxy within 30 minutes after the time appointed for the meeting then the meeting, if convened by Warrantholders or on a Warrantholders' Request, shall be dissolved; but in any other case it shall stand adjourned to such day, being not less than ten (10) Business Days later, and to such place and time as may be appointed by the chairman. Not less than three (3) days' prior notice shall be given of the time and place of such adjourned meeting in the manner provided for in Section 3.6. Such notice shall state that at the adjourned meeting the Warrantholders present in person or by proxy shall form a quorum but it shall not be necessary to set forth the purposes for which the meeting was originally called or any other particulars. At the adjourned meeting the Warrantholders present in person or by proxy shall form a quorum and may transact the business for which the meeting was originally convened and a resolution proposed at such adjourned meeting and passed by the requisite vote as provided in subsection 9.11(1) shall be an Extraordinary Resolution within the meaning of this Indenture notwithstanding that Warrantholders representing at least 25% of all the then outstanding Warrants are not present in person or by proxy at such adjourned meeting.
- (3) Votes on an Extraordinary Resolution shall always be given on a poll and no demand for a poll on an Extraordinary Resolution shall be necessary.

#### 9.12 Powers Cumulative

It is hereby declared and agreed that any one or more of the powers or any combination of the powers in this Indenture stated to be exercisable by the Warrantholders by Extraordinary Resolution or otherwise may be exercised from time to time and the exercise of any one or more of such powers or any combination of powers from time to time shall not be deemed to exhaust the right of the Warrantholders to exercise such power or powers or combination of powers then or thereafter from time to time.

## 9.13 Minutes

Minutes of all resolutions and proceedings at every meeting of Warrantholders shall be made and duly entered in books to be provided from time to time for that purpose by the Company, and any such minutes as aforesaid, if signed by the chairman of the meeting at which such resolutions were passed or proceedings had, shall be prima facie evidence of the matters therein stated and, until the contrary is proved, every such meeting in respect of the proceedings of which minutes shall have been made shall be deemed to have been duly convened and held, and all resolutions passed or proceedings taken thereat shall be deemed to have been duly passed and taken.

#### 9.14 Instruments in Writing

All actions which may be taken and all powers that may be exercised by the Warrantholders at a meeting held as provided in this Article IX may also be taken and exercised by Warrantholders representing at least 66 2/3% of the aggregate number of all the then outstanding Warrants by an instrument in writing signed in one or more counterparts by such Warrantholders in person or by attorney duly appointed in writing, and the expression "Extraordinary Resolution" when used in this Indenture shall include an instrument so signed.

#### 9.15 Binding Effect of Resolutions

Every resolution and every Extraordinary Resolution passed in accordance with the provisions of this Article IX at a meeting of Warrantholders shall be binding upon all the Warrantholders, whether present at or absent from such meeting, and every instrument in writing signed by Warrantholders in accordance with Section 9.14 shall be binding upon all the Warrantholders, whether signatories thereto or not, and each and every Warrantholder and the Warrant Agent (subject to receiving prior indemnification pursuant to subsection 11.1(2)) shall be bound to give effect accordingly to every such resolution and instrument in writing. In the case of an instrument in writing the Warrant Agent shall give notice in the manner contemplated in Section 3.6 and Section 13.1 of the effect of the instrument in writing to all Warrantholders and the Company as soon as is reasonably practicable.

#### 9.16 Holdings by Company Disregarded

In determining whether Warrantholders are present at a meeting of Warrantholders for the purpose of determining a quorum or have concurred in any consent, waiver, Extraordinary Resolution, Warrantholders' Request or other action under this Indenture, Warrants owned legally or beneficially by the Company or any Subsidiary of the Company or any other Affiliate of the Company, as determined in accordance with the provisions of Section 13.6, shall be disregarded. The Company shall provide, upon the written request of the Warrant Agent, a certificate as to the registration particulars of any Warrants held by the Company.

#### ARTICLE X SUPPLEMENTAL INDENTURES

#### 10.1 Provision for Supplemental Indentures for Certain Purposes

From time to time the Company (when properly authorized by action by the Directors) and the Warrant Agent may, subject to the provisions hereof, and they shall, when so directed in accordance with the provisions hereof and regulatory approval, execute and deliver by their proper officers, indentures, or instruments supplemental hereto, which thereafter shall form part hereof, for any one or more or all of the following purposes:

- (a) providing for the issue of additional Warrants hereunder and any consequential amendments hereto as may be required by the Warrant Agent, relying on advice of Counsel;
- (b) setting forth any adjustments resulting from the application of the provisions of Section 5.1 or any modification affecting the rights of Warrantholders hereunder on exercise of the Warrants, provided that any such adjustments or modifications shall be subject to compliance with all regulatory requirements (including the rules of any stock exchange or over-the-counter market on which the Common Shares are then listed or quoted for trading);
- (c) adding to the provisions hereof such additional covenants and enforcement provisions as, in the opinion of Counsel, are necessary or advisable, provided that the same are not in the opinion of the Warrant Agent, relying on the advice of Counsel, prejudicial to the rights or interests of the Warrantholders as a group;
- (d) giving effect to any Extraordinary Resolution passed as provided in Article IX;
- (e) making such provisions not inconsistent with this Indenture as may be necessary or desirable with respect to matters or questions arising hereunder, provided that such provisions are not, in the opinion of the Warrant Agent, relying on the advice of Counsel, prejudicial to the rights or interests of the Warrantholders as a group;
- (f) adding to or altering the provisions hereof in respect of the transfer of Warrants, making provision for the exchange of Warrant Certificates, and making any modification in the form of the Warrant Certificates which does not affect the substance thereof;
- (g) modifying any of the provisions of this Indenture or relieving the Company from any of the obligations, conditions or restrictions herein contained, provided that such modification or relief shall be or become operative or effective only if, in the opinion of the Warrant Agent, relying on the advice of Counsel, such modification or relief in no way prejudices any of the rights or interests of the Warrantholders as a group or of the Warrant Agent, and provided further that the Warrant Agent may in its sole discretion decline to enter into any such supplemental indenture which in its opinion may not afford adequate protection to the Warrant Agent when the same shall become operative; and

(h) for any other purpose not inconsistent with the terms of this Indenture, including the correction or rectification of any ambiguities, defective or inconsistent provisions, errors, mistakes or omissions herein, provided that in the opinion of the Warrant Agent, relying on the advice of Counsel, the rights or interests of the Warrant Agent and of the Warrantholders as a group are in no way prejudiced thereby.

#### 10.2 Successor Companies

In the case of the consolidation, amalgamation, merger or transfer of the undertaking or assets of the Company as an entirety or substantially as an entirety to another corporation ("successor corporation"), the successor corporation resulting from such consolidation, amalgamation, merger or transfer (if not the Company) shall expressly assume, by supplemental indenture satisfactory in form to the Warrant Agent and executed and delivered to the Warrant Agent, the due and punctual performance and observance of each and every covenant and condition of this Indenture to be performed and observed by the Company.

## ARTICLE XI CONCERNING THE WARRANT AGENT

#### 11.1 Indenture Legislation

- (1) If, and to the extent, any provision of this Indenture limits, qualifies or conflicts with a mandatory requirement of applicable statutes of Canada and its provinces and the regulations under those statutes relating to warrant indentures ("Applicable Legislation"), such mandatory requirement shall prevail.
- (2) The Company and the Warrant Agent agree that each will at all times in relation to this Indenture and any action to be taken hereunder observe and comply with and be entitled to the benefit of Applicable Legislation.

### 11.2 Rights and Duties of Warrant Agent

(1) In the exercise of the rights and duties prescribed or conferred by the terms of this Indenture, the Warrant Agent shall act honestly and in good faith with a view to the best interests of the Warrantholders and shall exercise that degree of care, diligence and skill that a reasonably prudent warrant agent would exercise in comparable circumstances. No provision of this Indenture shall be construed to relieve the Warrant Agent from, or require any Person to indemnify the Warrant Agent against, liability for its own gross negligence, wilful misconduct or fraud. The duties and obligations of the Warrant Agent shall be determined solely by the provisions hereof and, accordingly, the Warrant Agent shall only be responsible for the performance of such duties and obligations as it has undertaken herein. The Warrant Agent shall retain the right not to act and shall not be held liable for refusing to act in circumstances that require the delivery to or receipt by the Warrant Agent of documentation unless it has received clear and reasonable documentation which complies with the terms of this Indenture. Such documentation must not require the exercise of any discretion or independent judgement other than as contemplated by this Indenture. The Warrant Agent shall incur no liability with respect to the delivery or non-delivery of any certificate or certificates whether delivered by hand, mail or any other means, provided that it has complied with the terms of this Indenture in respect of the discharging of its obligations in respect of the delivery of such certificates. None of the provisions contained in this Indenture shall require the Warrant Agent again to expend or to risk its own funds or otherwise to incur financial liability in the performance of any of its duties or in the exercise of any of its rights or powers unless indemnified and funded as aforesaid.

- (2) The obligation of the Warrant Agent to commence or continue any act, action or proceeding for the purpose of enforcing any rights of the Warrant Agent or the Warrantholders hereunder shall be conditional upon the Warrantholders furnishing, when required by notice in writing by the Warrant Agent, sufficient funds to commence or to continue such act, action or proceeding and an indemnity reasonably satisfactory to the Warrant Agent to protect and to hold harmless the Warrant Agent, its officers, directors and employees against the costs, charges and expenses and liabilities to be incurred thereby and any loss and damage it may suffer by reason thereof.
- (3) The Warrant Agent may, before commencing or at any time during the continuance of any such act, action or proceedings, require the Warrantholders, at whose instance it is acting, to deposit with the Warrant Agent the Warrant Certificates held by them, for which the Warrant Agent shall issue receipts.
- (4) Every provision of this Indenture that by its terms relieves the Warrant Agent of liability or entitles it to rely upon any evidence submitted to it is subject to the provisions of Section 11.12.

# 11.3 Evidence, Experts and Advisers

- (1) In addition to the reports, certificates, opinions and evidence required by this Indenture, the Company shall furnish to the Warrant Agent such additional evidence of compliance with any provision hereof, and in such form as may be prescribed by Applicable Legislation or as the Warrant Agent may reasonably require by written notice to the Company.
- (2) The Warrant Agent shall be protected in acting and relying upon any written notice, request, waiver, consent, certificate, receipt, statutory declaration or other paper or document furnished to it, not only as to its due execution and the validity and effectiveness of its provisions, but also as to the truth of and acceptability of any information therein contained which it in good faith believes to be genuine and what it purports to be.
- (3) Proof of the execution of an instrument in writing, including a Warrantholders' Request, by any Warrantholder may be made by the certificate of a notary public, or other officer with similar powers, that the Person signing such instrument acknowledged to him the execution thereof, or by an affidavit of a witness to such execution or in any other manner which the Warrant Agent may consider adequate.

(4) The Warrant Agent may employ or retain such Counsel, accountants, appraisers or other experts or advisers as it may reasonably require for the purpose of determining and discharging its duties hereunder and shall not be responsible for any misconduct or negligence on the part of such experts or advisors who have been appointed and supervised with due care by the Warrant Agent. The fees of such Counsel and other experts shall be part of the Warrant Agent's fees hereunder. The Warrant Agent shall be fully protected in acting or not acting and relying, in good faith, in accordance with any opinion or instruction of such Counsel. Any remuneration so paid by the Warrant Agent shall be repaid to the Warrant Agent in accordance with Section 7.2.

#### 11.4 Action by Warrant Agent to Protect Interest

Subject to the provisions of this Indenture and Applicable Legislation, the Warrant Agent shall have power to institute and to maintain such actions and proceedings as it may consider necessary or expedient to preserve, protect or enforce its interests and the interests of the Warrantholders.

# 11.5 Warrant Agent not Required to Give Security

The Warrant Agent shall not be required to give any bond or security in respect of the execution of the trusts and powers of this Indenture or otherwise.

#### 11.6 Protection of Warrant Agent

- By way of supplement to the provisions of any law for the time being relating to trustees or warrant agents it is expressly declared and agreed as follows:
- (a) The Warrant Agent shall not be liable for or by reason of any statement of fact or recitals in this indenture or in the Warrant Certificates (except the representations contained in Section 11.8 or in the certificate of the Warrant Agent on the Warrant Certificates) or be required to verify the same, but all such statements or recitals are and shall be deemed to be made by the Company;
- (b) Nothing herein contained shall impose any obligation on the Warrant Agent to see to or to require evidence of the registration or filing (or renewal thereof) of this Indenture or any instrument ancillary or supplemental hereto;
- (c) The Warrant Agent shall not be bound to give notice to any Person or Persons of the execution hereof; and
- (d) The Warrant Agent shall not incur any liability or responsibility whatever or be in any way responsible for the consequence of any breach on the part of the Company of any of the covenants herein contained or of any acts of any Directors, officers, employees, agents or servants of the Company.

#### - 48 -

#### 11.7 Replacement of Warrant Agent; Successor by Merger

- The Warrant Agent may resign and be discharged from all further duties and liabilities hereunder, subject to this subsection 11.7(1), by giving to the Company not less (1)than 30 days prior notice in writing or such shorter prior notice as the Company may accept as sufficient. The Warrantholders by Extraordinary Resolution shall have power at any time to remove the existing Warrant Agent and to appoint a new warrant agent. In the event of the Warrant Agent resigning or being removed as aforesaid or being dissolved, becoming bankrupt, going into liquidation or otherwise becoming incapable of acting hereunder, the Company shall forthwith appoint a new warrant agent unless a new warrant agent has already been appointed by the Warrantholders; failing such appointment by the Company, the retiring Warrant Agent or any Warrantholder may apply to a justice of the Ontario Superior Court of Justice (the "Court"), at the Company's expense, on such notice as such justice may direct, for the appointment of a new warrant agent; but any new warrant agent so appointed by the Company or by the Court shall be subject to removal as aforesaid by the Warrantholders. Any new warrant agent appointed under any provision of this Section 11.7 shall be a company authorized to carry on the business of a transfer agent in the province of Ontario. On any such appointment the new warrant agent shall be vested with the same powers, rights, duties and responsibilities as if it had been originally named herein as Warrant Agent without any further assurance, conveyance, act or deed; but there shall be immediately executed, at the expense of the Company, all such conveyances or other instruments as may, in the opinion of Counsel, be necessary or advisable for the purpose of assuring the same to the new warrant agent, provided that, any resignation or removal of the Warrant Agent and appointment of a successor warrant agent shall not become effective until the successor warrant agent shall have executed an appropriate instrument accepting such appointment and, at the request of the Company, the predecessor Warrant Agent, upon payment of its outstanding remuneration and expenses, shall execute and deliver to the successor warrant agent an appropriate instrument transferring to such successor warrant agent all rights and powers of the Warrant Agent hereunder.
- (2) Upon the appointment of a successor warrant agent, the Company shall promptly notify the Warrantholders thereof in the manner provided for in Section 3.6.
- (3) This Indenture shall enure to the benefit of and be binding upon the parties hereto and their respective successors and assigns. The Company agrees that the Warrant Agent may assign its rights and duties under this Indenture to one of its affiliates without the need for any further notice to, or approval from, the Company.

(4) Any Warrants certified but not delivered by a predecessor Warrant Agent may be certified by the new or successor warrant agent in the name of the predecessor or the new or successor warrant agent.

## 11.8 Conflict of Interest

- (1) The Warrant Agent represents to the Company that to the best of its knowledge at the time of execution and delivery hereof no material conflict of interest exists in its role as a warrant agent hereunder and agrees that in the event of a material conflict of interest arising hereafter it shall immediately notify the Company of the material conflict of interest with complete details of the conflict and such other information as the Company may reasonably request in connection therewith and, within ninety (90) days after ascertaining that it has such material conflict of interest, either eliminate the same or resign its trusts hereunder to a successor warrant agent approved by the Company and meeting the requirements set forth in subsection 11.7(1). Notwithstanding the foregoing provisions of this subsection 11.8(1), if any such material conflict of interest exists or hereinafter shall exist, the validity and enforceability of this Indenture and the Warrant Certificates shall not be affected in any manner whatsoever by reason thereof.
- (2) Subject to subsection 11.8(1), the Warrant Agent, in its personal or any other capacity, may buy, lend upon and deal in securities of the Company and generally may contract and enter into financial transactions with the Company or any Subsidiary of the Company without being liable to account for any profit made thereby.

## 11.9 Warrant Agent Not to be Appointed Receiver

The Warrant Agent and any Person related to the Warrant Agent shall not be appointed a receiver, a receiver and manager or liquidator of all or any part of the assets or undertaking of the Company.

## 11.10 Payments by Warrant Agent

The forwarding of a cheque by the Warrant Agent will satisfy and discharge the liability for any amounts due to the extent of the sum or sums represented thereby (plus the amount of any tax deducted or withheld as required by law) unless such cheque is not honoured on presentation; provided that in the event of the non-receipt of such cheque by the payee, or the loss or destruction thereof, the Warrant Agent, upon being furnished with reasonable evidence of such non-receipt, loss or destruction and indemnity reasonably satisfactory to it, will issue to such payee a replacement cheque for the amount of such cheque.

#### 11.11 Deposit of Securities

The Warrant Agent shall not be responsible or liable in any manner whatsoever for the sufficiency, correctness, genuineness or validity of any security deposited with it.

## 11.12 Act, Error, Omission etc.

The Warrant Agent shall not be liable for any error in judgement or for any act done or step taken or omitted by it in good faith, for any mistake, in fact or law, or for anything which it may do or refrain from doing in connection herewith except arising out of its own gross negligence, wilful misconduct or fraud.

## 11.13 Indemnification

Without limiting any protection or indemnity of the Warrant Agent under any other provision hereof, or otherwise at law, the Company hereby agrees to indemnify and hold harmless the Warrant Agent and its directors, officers, agents and employees from and against any and all liabilities, losses, damages, penalties, claims, actions, suits, costs, expenses and disbursements, including reasonable legal or advisor fees and disbursements, of whatever kind and nature which may at any time be imposed on, incurred by or asserted against the Warrant Agent and its directors, officers, agents and employees in connection with the performance of its duties and obligations hereunder, other than such liabilities, losses, damages, penalties, claims, actions, suits, costs, expenses and disbursements arising by reason of gross negligence, wilful misconduct or fraud of the Warrant Agent and its directors, officers, agents and employees. This provision shall survive the resignation or removal of the Warrant Agent, or the termination of this Indenture.

The Warrant Agent shall not be under any obligation to prosecute or defend any action or suit in respect of this Indenture which, in the opinion of its counsel, may involve it in expense or liability, unless the Company shall, so often as required, furnish the Warrant Agent with satisfactory indemnity and funding against such expense or liability.

## 11.14 Notice

The Warrant Agent shall not be bound to give any notice or do or take any act, action or proceeding by virtue of the powers conferred on it hereby unless and until it shall have been required to so under the terms hereof; nor shall the Warrant Agent be required to take notice of any default hereunder, unless and until notified in writing of such default, which notice shall distinctly specify the default desired to be brought to the attention of the Warrant Agent and in the absence of any such notice the Warrant Agent may for all purposes of this Indenture conclusively assume that no default has been made in the observance or performance of any of the representations, warranties, covenants, agreements or conditions contained herein. Any such notice shall in no way limit any discretion herein given the Warrant Agent to determine whether or not the trustee shall take action with respect to any default.

#### 11.15 Reliance by the Warrant Agent

The Warrant Agent may act on the opinion or advice obtained from Counsel to the Warrant Agent and shall, provided it acts in good faith in reliance thereon, not be responsible for any loss occasioned by doing so nor shall it incur any liability or responsibility for determining in good faith not to act upon such opinion or advice. The Warrant Agent may rely, and shall be protected in relying, upon any statement, request, direction or other paper or document believed by it to be genuine and to have been signed, sent or presented by or on behalf of the proper party or parties. The Warrant Agent may assume for the purposes of this Indenture that any address on the register of the Warrantholders is the holder's actual address and is also determinative as to residency of the transferee to whom any Common Shares are to be registered, as shown on the transfer document is the transferee's actual address and is also determinative as to residency of the transferee. The Warrant Agent shall have no obligation to ensure that legends appearing on the Warrant Certificates or Common Shares comply with regulatory requirements or securities laws of any applicable jurisdiction.

#### 11.16 Privacy

The parties to this Warrant Indenture acknowledge that federal and/or provincial legislation that addresses the protection of individuals' personal information (collectively, "**Privacy Laws**") applies to obligations and activities under this Warrant Indenture. Despite any other provision of this Warrant Indenture, neither party shall take or direct any action that would contravene, or cause the other party to contravene, applicable Privacy Laws. The Company shall, prior to transferring or causing to be transferred personal information to the Warrant Agent, obtain and retain required consents of the relevant individuals to the collection, use and disclosure of their personal information, or shall have determined that such consents either have previously been given upon which the parties can rely or are not required under applicable Privacy Laws. The Warrant Agent shall use commercially best efforts to ensure that its services hereunder comply with applicable Privacy Laws. Specifically, the Warrant Agent agrees: (a) to have a designated chief privacy officer; (b) to maintain policies and procedures to protect personal information and to receive and respond to any privacy complaint or inquiry; (c) to use personal information solely for the purposes of providing its services under or ancillary to this Warrant Indenture and not to use it for any other purpose except with the consent of or direction from the Company or the individual involved; (d) not to sell or otherwise improperly disclose personal information to any third party; and (e) to employ administrative, physical and technological safeguards to reasonably secure and protect personal information against loss, theft or unauthorized access, use or modification.

## 11.17 Anti-Money Laundering

The Warrant Agent shall retain the right not to act and shall not be liable for refusing to act if, due to a lack of information or for any other reason whatsoever, the Warrant Agent, in its sole judgment, acting reasonably, determines that such act might cause it to be in noncompliance with any applicable anti-money laundering, anti-terrorist or economic sanction legislation, regulation or guideline. Further, should the Warrant Agent, in its sole judgment, acting reasonably, determine at any time that its acting under this Indenture has resulted in its being in non-compliance with any applicable anti-money laundering, anti-terrorist or economic sanction legislation, regulation or guideline, then it shall have the right to resign on 10 Business Days' prior written notice sent to the Company provided that (i) the Warrant Agent's written notice shall describe the circumstances of such non-compliance; and (ii) if such circumstances are rectified to the Warrant Agent's satisfaction within such 10-Business Day period, then such resignation shall not be effective.

## 11.18 Force Majeure

Neither party to this Indenture shall be personally liable to the other, or held in breach of this Indenture, if prevented, hindered, or delayed in the performance or observance of any provision contained herein by reason of an act of God, riots, terrorism, acts of war, epidemics, governmental action or judicial order, earthquakes, or any other similar causes (including, but not limited to, mechanical, electronic or communication interruptions, disruptions or failures). Performance times under this Indenture shall be extended for a period of time equivalent to the time lost because of any delay that is excusable under this Section 11.18.

## ARTICLE XII ACCEPTANCE OF TRUSTS BY WARRANT AGENT

## 12.1 Appointment and Acceptance of Functions

The Company hereby appoints the Warrant Agent under the terms and conditions set forth in this Indenture. The Warrant Agent hereby accepts the terms of this Indenture declared and provided for and agrees to perform the same upon the terms and conditions set forth herein.

#### ARTICLE XIII GENERAL

## 13.1 Notice to the Company and the Warrant Agent

(1) Unless herein otherwise expressly provided, any notice to be given hereunder to the Company and to the Warrant Agent shall be in writing and may be given by mail, or by facsimile (with original copy to follow by mail) or by personal delivery and shall be addressed as follows:

(a) if to the Company, to

Titan Medical Inc. 170 University Avenue Suite 1000 Toronto, Ontario M5H 3B3

Attention: Stephen Randall Facsimile: (647) 348-1512

with a copy to:

Borden Ladner Gervais LLP Bay Adelaide Centre, East Tower 22 Adelaide Street West, Suite 3400 Toronto, Ontario M5H 3E3

Attention:Manoj PunditFacsimile:(416) 367-6749

(b) if to the Warrant Agent, to

Computershare Trust Company of Canada 100 University Avenue 11th Floor Toronto, Ontario M5J 2Y1

Attention:General Manager, Corporate Trust DepartmentFacsimile:(416) 981-9777

and shall be deemed to have been given, if delivered or sent by courier, on the date of delivery or, if mailed, on the third (3rd) Business Day following the date of the postmark on such notice or, if sent by facsimile, on the date of facsimile transmission. Any delivery made or sent by facsimile on a day other than a Business Day, or after 3:00 p.m. (Toronto time) on a Business Day, shall be deemed to be received on the next following Business Day.

- (2) The Company or the Warrant Agent, as the case may be, may from time to time give notice in the manner provided in subsection 13.1(1) of a change of address which, from the effective date of such notice and until changed by like notice, shall be the address of the Company or the Warrant Agent, as the case may be, for all purposes of this Indenture. A copy of any notice of change of address of the Company given pursuant to this subsection 13.1(2) shall be sent to the principal transfer office of the Warrant Agent in the City of Toronto, Ontario and shall be available for inspection by Warrantholders during normal business hours.
- (3) If, by reason of a strike, lockout or other work stoppage, actual or threatened, involving postal employees, any notice to be given to the Warrant Agent or to the Company hereunder could reasonably be considered unlikely to reach its destination, such notice shall be valid and effective only if it is delivered to an officer of the party to which it is addressed or if it is delivered to such party at the appropriate address provided in subsection 13.1(1) by facsimile or other means of prepaid, transmitted, recorded communication and any such notice delivered in accordance with the foregoing shall be deemed to have been received on the date of delivery to such officer or if delivered by facsimile or other means of prepaid, transmitted, recorded communication, on the first Business Day following the date of the sending of such notice by the Person giving such notice.

#### 13.2 Time of the Essence

Time shall be of the essence in this Indenture.

## 13.3 Counterparts and Formal Date

This Indenture may be executed in several counterparts, each of which when so executed shall be deemed to be an original and such counterparts together shall constitute one and the same instrument and notwithstanding their date of execution shall be deemed to be dated as of the date hereof.

#### 13.4 Discretion of Directors

Any matter provided herein to be determined by the Directors shall be determined by the Directors in their sole discretion and any determination so made will be conclusive.

## 13.5 Satisfaction and Discharge of Indenture

Upon the earlier of (a) the date by which there shall have been delivered to the Warrant Agent for exercise or cancellation of all Warrant Certificates theretofore certified hereunder or (b) the expiration of the Exercise Period, this Indenture, except to the extent that Common Shares and certificates therefor have not been issued and delivered hereunder or the Warrant Agent or the Company have not performed any of their obligations hereunder, shall cease to be of further effect and the Warrant Agent, on demand of and at the cost and expense of the Company and upon delivery to the Warrant Agent of a certificate of the Company stating that all conditions precedent to the satisfaction and discharge of this Indenture have been complied with and upon payment to the Warrant Agent of the fees and other remuneration payable to the Warrant Agent, shall execute proper instruments acknowledging satisfaction of and discharging of this Indenture.

#### 13.6 Provisions of Indenture and Warrant Certificates for the Sole Benefit of Parties and Warrantholders

Nothing in this Indenture or the Warrant Certificates, expressed or implied, shall give or be construed to give to any Person other than the parties hereto and the holders of the Warrant Certificates any legal or equitable right, remedy or claim under this Indenture, or under any covenant or provision herein contained, all such covenants and provisions being for the sole benefit of the parties hereto and the Warrantholders.

#### 13.7 Common Shares or Warrants Owned by the Company or its Subsidiaries Certificates to be Provided

For the purpose of disregarding any Warrants owned legally or beneficially by the Company or any Subsidiary of the Company or any other Affiliate of the Company in Section 9.16, the Company shall provide to the Warrant Agent, from time to time, a certificate of the Company setting forth as at the date of such certificate (a) the names (other than the name of the Company) of the registered holders of Common Shares which, to the knowledge of the Company, are owned by or held for the account of the Company or any Subsidiary of the Company or any other Affiliate of the Company; and (b) the number of Warrants owned legally and beneficially by the Company or any Subsidiary of the Company or any other Affiliate of the Company of the Company or any other Affiliate of the Company of the Compan

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# TITAN MEDICAL INC.

| By: | (signed) | "Stephen Randal | <i>l"</i> |
|-----|----------|-----------------|-----------|
|     |          |                 |           |

- Name: Stephen Randall
- Title: Chief Financial Officer

## COMPUTERSHARE TRUST COMPANY OF CANADA

| By:    | (signed) "Robert Morrison"  |
|--------|-----------------------------|
| Name:  | Robert Morrison             |
| Title: | Corporate Trust Officer     |
|        |                             |
| By:    | (signed)"Charles Cuschieri" |
| Name:  | Charles Cuschieri           |
| Title: | Associate Trust Officer     |

## SCHEDULE "A" FORM OF WARRANT CERTIFICATE

#### [For U.S. Persons, persons in the United States or persons for the account or benefit of a U.S. Person or a person in the United States, the following legend is to be inserted:]

THE SECURITIES REPRESENTED HEREBY AND THE SECURITIES ISSUABLE UPON EXERCISE HEREOF HAVE NOT BEEN AND WILL NOT BE REGISTERED UNDER THE UNITED STATES SECURITIES ACT OF 1933, AS AMENDED (THE "U.S. SECURITIES ACT") OR U.S. STATE SECURITIES LAWS. BY PURCHASING OR OTHERWISE HOLDING SUCH SECURITIES, THE HOLDER AGREES FOR THE BENEFIT OF TITAN MEDICAL INC. (THE "CORPORATION") THAT THESE SECURITIES MAY BE OFFERED, SOLD, PLEDGED OR OTHERWISE TRANSFERRED, DIRECTLY OR INDIRECTLY, ONLY (A) TO THE CORPORATION; OR (B) OUTSIDE THE UNITED STATES IN COMPLIANCE WITH RULE 904 OF REGULATION S UNDER THE U.S. SECURITIES ACT, IF AVAILABLE, AND IN COMPLIANCE WITH APPLICABLE LOCAL LAWS AND REGULATIONS; OR (C) IN COMPLIANCE WITH THE EXEMPTION FROM THE REGISTRATION REQUIREMENTS UNDER THE U.S. SECURITIES ACT PROVIDED BY (I) RULE 144 OR (II) RULE 144A THEREUNDER, IF AVAILABLE, AND IN EACH CASE IN ACCORDANCE WITH APPLICABLE U.S. STATE SECURITIES LAWS; OR (D) IN ANOTHER TRANSACTION THAT DOES NOT REQUIRE REGISTRATION UNDER THE U.S. SECURITIES ACT OR ANY APPLICABLE STATE SECURITIES LAWS; OR (E) PURSUANT TO AN EFFECTIVE REGISTRATION STATEMENT UNDER THE U.S. SECURITIES ACT, PROVIDED THAT, IN THE CASE OF TRANSFERS PURSUANT TO (C)(I) OR (D) ABOVE, THE HOLDER HAS, PRIOR TO SUCH TRANSFER, FURNISHED TO THE CORPORATION AN OPINION OF COUNSEL OR OTHER EVIDENCE OF EXEMPTION, IN EITHER CASE REASONABLY SATISFACTORY TO THE CORPORATION. DELIVERY OF THIS CERTIFICATE MAY NOT CONSTITUTE "GOOD DELIVERY" IN SETTLEMENT OF TRANSACTIONS ON STOCK EXCHANGES IN CANADA.

THIS WARRANT AND THE SECURITIES ISSUABLE UPON EXERCISE HEREOF HAVE NOT BEEN REGISTERED UNDER THE U.S. SECURITIES ACT. THIS WARRANT MAY NOT BE EXERCISED BY OR ON BEHALF OF A U.S. PERSON OR PERSON IN THE UNITED STATES UNLESS THE SHARES ISSUABLE UPON EXERCISE OF THIS WARRANT HAVE BEEN ACT AND THE APPLICABLE SECURITIES LEGISLATION OF ANY SUCH STATE OR EXEMPTIONS FROM SUCH REGISTRATION REQUIREMENTS ARE AVAILABLE. "UNITED STATES" AND "U.S. PERSON" ARE AS DEFINED BY REGULATION S UNDER THE U.S. SECURITIES ACT.

## TITAN MEDICAL INC.

a corporation existing under the laws of the Province of Ontario and having its principal office at 170 University Avenue, Suite 1000, Toronto, Ontario, M5H 3B3

CUSIP: 88830X314

ISIN: CA88830X3141

WARRANTS

Each warrant entitling the holder to purchase one (1) common share of Titan Medical Inc.

#### COMMON SHARE PURCHASE WARRANTS

THIS IS TO CERTIFY THAT for value received • (the "Holder") is the registered holder of the number of warrants (the "Warrants") stated above and is entitled, for each Warrant represented hereby, to purchase one Common Share (subject to adjustment as hereinafter referred to) in the capital of Titan Medical Inc. (the "Company") at any time from the date of issue hereof up to and including 5:00 p.m. (Toronto Time) on April 10, 2023 (the "Expiry Time") by surrendering to Computershare Trust Company of Canada (the "Warrant Agent") at its principal transfer office in Toronto, Ontario this Warrant Certificate with a subscription in the form of the attached Subscription Form duly completed and executed and accompanied by payment of CDN\$0.35 per share, subject to adjustment as hereinafter referred to (the "Exercise Price") by certified cheque, money order or bank draft in lawful money of Canada on the exercise of the Warrants represented by this Warrant Certificate, in which event a new Warrant Certificate representing the Warrants not then exercised will be issued to the holder.

The Warrants represented by this Warrant Certificate shall be deemed to have been surrendered and payment by certified cheque, money order or bank draft shall be deemed to have been made, only upon personal delivery thereof or, if sent by post or other means of transmission, upon actual receipt thereof by the Warrant Agent at the office specified above.

This Warrant Certificate represents Warrants issued under the provisions of the Warrant Indenture (which indenture together with all other instruments supplemental or ancillary there is referred to herein as the "**Warrant Indenture**") dated as of April 10, 2018 between the Company and the Warrant Agent, which contains particulars of the rights of the holders of the Warrants and the Company and of the Warrant Agent in respect thereof and the terms and conditions upon which the Warrants are issued and held, all to the same effect as if the provisions of the Warrant Indenture were herein set forth, to all of which the holder of this Warrant Certificate by acceptance hereof assents. A copy of the Warrant Indenture is available for inspection on the Company's profile on www.sedar.com or the Company shall, on the written request of the Holder and without charge, provide the Holder with a copy of the Warrant Indenture. Capitalized terms used in this Warrant Indenture (and any amendments thereto and instruments supplemental thereto) and the provisions of the Warrant Indenture (and any amendments thereto and instruments supplemental thereto) and the provisions of this Warrant Certificate, the provisions of the Warrant Indenture shall prevail.

NO. •

Subject to the Indenture and to any restriction under applicable law or policy of any applicable regulatory body, the Warrants and Warrant Certificates and the rights thereunder shall only be transferable by the registered holder hereof in compliance with the conditions prescribed in the Indenture and the due completion, execution and delivery of a Transfer Form (as attached hereto) in accordance with the terms of the Indenture.

Upon due exercise of the Warrants represented by this Warrant Certificate and payment of the Exercise Price, the Company shall cause to be issued, within five (5) Business Days after the exercise of Warrants represented by this Warrant Certificate, to the person(s) in whose name(s) the Common Shares so subscribed for are to be issued, the number of Common Shares, as fully paid and non-assessable and Certificate(s) representing such Common Shares and such person(s) shall become a holder in respect of such Common Shares with effect from the date of such exercise and upon the due surrender of this Warrant Certificate.

The Warrant Indenture provides for adjustment in the number of Common Shares to be delivered upon exercise of the right of purchase hereby granted and to the Exercise Price in certain events therein set forth.

The Warrants represented hereby and the Common Shares issuable upon the exercise hereof, have not been registered under the United States Securities Act of 1933, as amended, or applicable state securities laws, and the Warrants evidenced by this Warrant Certificate may not be exercised unless the Holder hereof provides the Company with a written certification in the form as set forth on the Subscription Form on the reverse side of this Warrant Certificate.

The Warrants and the Warrant Indenture shall be governed by and performed, construed and enforced in accordance with the laws of the Province of Ontario and the federal laws applicable therein and shall be treated in all respects as Ontario contracts.

Time shall be of the essence hereof and of the Warrant Indenture.

This Warrant Certificate shall not be valid for any purpose until it has been certified by or on behalf of the Warrant Agent for the time being under the Warrant Indenture.

IN WITNESS WHEREOF this Warrant Certificate has been executed on behalf of Titan Medical Inc. as of the \_\_\_\_\_day of April, 2018.

#### TITAN MEDICAL INC.

This Warrant Certificate represents Warrants referred to in the Warrant Indenture within mentioned.

Countersigned:

## COMPUTERSHARE TRUST COMPANY OF CANADA

Dated:

TO: Computershare Trust Company of Canada 100 University Avenue 11th Floor, North Tower Toronto, ON M5J 2Y1

Attention: General Manager, Corporate Trust Department

The undersigned holder of the within Warrants hereby irrevocably subscribes for \_\_\_\_\_\_Common Shares of Titan Medical Inc. (the '**Company**') at the Exercise Price referred to in the attached Warrant Certificate on the terms and conditions set forth in such certificate and the Warrant Indenture and encloses herewith a certified cheque, bank draft or money order payable at par in Toronto, Ontario to the order of Titan Medical Inc. in payment in full of the subscription price of the number of Common Shares hereby subscribed for.

The undersigned represents, warrants and certifies as follows (one (only) of the following must be checked):

- [] A. the undersigned holder: (a) at the time of exercise of the Warrants is not in the United States; (b) is not a "U.S. person" as defined in Regulation S under the United States Securities Act of 1933, as amended (the "U.S. Securities Act"), and is not exercising the Warrants on behalf of a "U.S. person"; and (c) has in all other aspects complied with the terms of an "offshore transaction" within the meaning of Regulation S under the U.S. Securities Act;
- [] B. the undersigned holder: (a) purchased Units directly from the Company for its own account or the account of another institutional "accredited investor", as that term is defined in Rule 501(a)(1), (2), (3) or (7) of Regulation D under the U.S. Securities Act (an "**Institutional Accredited Investor**"), pursuant to an executed Form of U.S. Subscription Agreement for Institutional Accredited Investors attached to the U.S. Placement Memorandum, for the purchase of Units of the Company; (b) is exercising the Warrants solely for its own account or the account of such other Institutional Accredited Investor for whose account such holder exercises sole investment discretion; (c) was an Institutional Accredited Investor, both on the date the Units were purchased from the Company and on the date the version was the beneficial purchaser for whose account the undersigned holder regresents, warrants and certifies that such person was the beneficial purchaser for whose account the undersigned holder originally acquired Units upon the exercise of the Warrants; or
- [] C. the undersigned holder: (a) purchased Units directly from the Company for its own account or the account of another "qualified institutional buyer", within the meaning of Rule 144A under the U.S. Securities Act (a "Qualified Institutional Buyer"), pursuant to an executed Qualified Institutional Buyer Letter for Qualified Institutional Buyers for the purchase of Units of the Company; (b) is exercising the Warrants solely for its own account or the account of such other Qualified Institutional Buyer for whose account such holder exercises sole investment discretion; (c) was a Qualified Institutional Buyer, both on the date the Units were purchased from the Company and on the date of the exercise of the Warrants; and (d) if the Warrants are being exercised on behalf of another person, the undersigned holder represents, warrants and certifies that such person was the beneficial purchaser for whose account the undersigned holder originally acquired Units upon the exercise of which the Warrants were acquired and was an Qualified Institutional Buyer, both on the date the Units were purchased from the Currants;

[] D. the undersigned holder has delivered to the Company an opinion of counsel (which will not be sufficient unless it is from counsel of recognized standing and in form and substance satisfactory to the Company) to the effect that an exemption from the registration requirements of the U.S. Securities Act and applicable state securities laws is available for the issuance of the Common Shares issuable upon exercise of the Warrants.

Notes:

- (1) Certificates will not be registered or delivered to an address in the United States unless either Box B, C or D above is checked.
- (2) If Box B, C or D is checked, the certificate representing the Common Shares will bear a legend restricting transfer without registration under the United Securities Act of 1933, as amended and applicable state securities laws unless an exemption from registration is available. However, a Qualified Institutional Buyer who checks off Box C above, may enter their Common Shares issued upon exercise of their Warrants into CDS.
- (3) If Box D above is checked, holders are encouraged to consult with the Company in advance to determine that the legal opinion tendered in connection with the exercise will be satisfactory in form and substance to the Company. The undersigned hereby directs that the said Common Shares be issued as follows:

| Name(s) in full   | Address(es)             | Number(s) of  |
|-------------------|-------------------------|---------------|
|                   | (including Postal Code) | Common Shares |
| (please print)    |                         |               |
| DATED this day of | , 20                    |               |
|                   |                         |               |

Signature Guaranteed

Name of Warrantholder

| - 3 - |  |
|-------|--|
|-------|--|

Name of Authorized Representative

Title or Capacity of Authorized Representative

Signature of Warrantholder or Authorized Representative

(Print Name of Subscriber)

Daytime Phone Number of Warrantholder or Authorized Representative

(Address of Subscriber in full)

[] Please check this box if the securities are to be picked up at the office where the Warrant Certificate is surrendered, failing which the securities will be mailed to the address indicated above.

## Instructions:

The signature of the Warrantholder must be the signature of the registered holder appearing on the face of this Warrant Certificate.

If this Subscription Form is signed by a trustee, executor, administrator, curator, guardian, attorney, officer of a corporation or any person acting in a fiduciary or representative capacity, this Subscription Form must be accompanied by evidence of authority to sign satisfactory to the Warrant Agent and the Company, acting reasonably.

The signature on this Subscription Form must be guaranteed by a major Canadian chartered bank, medallion guaranteed by a recognized medallion signature guarantee program or in any other manner satisfactory to the Warrant Agent. The guarantor must affix a stamp bearing the actual words "Signature Guaranteed". Signature guarantees are not accepted from Treasury Branches or credit unions unless they are members of the Stamp Medallion Program. In the United States, signature guarantees must be done by members of the "Medallion Signature Guarantee Program" only.

If securities are to be issued to a person other than the registered holder, the Subscription Form must be completed and the holder must pay or cause to be paid to the Company all applicable transfer or similar taxes, if any, and the Company shall not be required to issue or deliver certificates evidencing the Common Shares and, if applicable, the Warrants, unless and until such holder shall have paid to the Company the amount of such tax or shall have established to the satisfaction of the Company that such tax has been paid or that no tax is due.

The Warrants will expire at 5:00 p.m. (Toronto Time) on April 10, 2023 and must be exercised before that time, otherwise the same shall expire and be void and of no value.

## TRANSFER FORM

# ANY TRANSFER OF WARRANTS WILL REQUIRE COMPLIANCE WITH APPLICABLE SECURITIES LEGISLATION. TRANSFERORS AND TRANSFEREES ARE URGED TO CONTACT LEGAL COUNSEL BEFORE EFFECTING ANY SUCH TRANSFER.

FOR VALUE RECEIVED, the undersigned hereby sells, assigns and transfers unto (name)

## (the "Transferee"),

#### (Residential Address of Transferee)

Warrants of Titan Medical Inc. (the "**Company**") registered in the name of the undersigned on the records of the Company represented by the within Warrant Certificate, and irrevocably appoints \_\_\_\_\_\_\_ as the attorney of the undersigned to transfer the said securities on the books or register of transfer, with full power of substitution.

In the case of a warrant certificate that does not contain a U.S. restrictive legend, the undersigned hereby represents, warrants and certifies that either:

- a) the undersigned transferee (i) is not a U.S. Person (as defined in Rule 902(k) of Regulation S under the United States Securities Act of 1933, as amended, the "U.S. Securities Act"), (ii) at the time of transfer is not within the United States, and (iii) is not acquiring any of the Warrants represented by this Warrant Certificate by or on behalf of any U.S. Person or person within the United States, unless registered under the U.S. Securities Act and any applicable state securities laws or unless an exemption from such registration is available; or
- b) if the proposed transfer is to, or for the account or benefit of a U.S. Person or to a person in the United States, the undersigned hereby represents, warrants and certifies that the transfer of the Warrants is being completed pursuant to an exemption from the registration requirements of the U.S. Securities Act and any applicable state securities laws, in which case the undersigned has furnished to the Corporation and the Warrant Agent an opinion of counsel of recognized standing in form and substance reasonably satisfactory to the Corporation to such effect.

In the case of a warrant certificate that contains a U.S. restrictive legend, the undersigned hereby represents, warrants and certifies that (one (only) of the following must be checked):

[] (A) the transfer is being made only to the Corporation;

|           | []     | (B) the transfer is being made outside the United States in accordance with Rule 904 of Regulation S under the U.S. Securities Act, and in compliance with any applicable local securities laws and regulations and the holder has provided herewith the Declaration for Removal of Legend attached as Schedule "B" to the Indenture or has furnished to the Corporation and the Warrant Agent an opinion of counsel of recognized standing in form and substance reasonably satisfactory to the Corporation that the transfer does not require registration under the U.S. Securities Act or any applicable state securities laws, or |
|-----------|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|           | []     | (C) the transfer is being made within the United States or to, or for the account or benefit of, U.S. Persons, in accordance with a transaction that does not require registration under the U.S. Securities Act or any applicable state securities laws and the undersigned has furnished to the Corporation and the Warrant Agent an opinion of counsel of recognized standing in form and substance reasonably satisfactory to the Corporation to such effect.                                                                                                                                                                      |
| DATED the | day of | , 20                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

Signature Guaranteed (Signature of Holder, to be the same as appears on the face of this Warrant Certificate)

Signature Guaranteed

(Signature of Holder, to be the same as appears on the face of this Warrant Certificate)

Print Name

Address

#### Instructions:

If this Transfer Form is signed by a trustee, executor, administrator, curator, guardian, attorney, officer of a corporation or any person acting in a fiduciary or representative capacity, this Transfer Form must be accompanied by evidence of authority to sign satisfactory to the Warrant Agent and the Company, acting reasonably.

The signature on this Transfer Form must be guaranteed by a major Canadian chartered bank, medallion guaranteed by a recognized medallion signature guarantee program or in any other manner satisfactory to the Warrant Agent. The guarantor must affix a stamp bearing the actual words "Signature Guaranteed". Signature guarantees are not accepted from Treasury Branches or credit unions unless they are members of the Stamp Medallion Program. In the United States, signature guarantees must be done by members of the "Medallion Signature Guarantee Program" only.

#### SCHEDULE "B" FORM OF DECLARATION FOR REMOVAL OF U.S. LEGEND

## FORM OF DECLARATION FOR REMOVAL OF LEGEND

#### TO: Computershare Trust Company of Canada as registrar and transfer agent for Common Shares and Warrants of Titan Medical Inc. (the "Corporation")

The undersigned (A) acknowledges that the sale of \_\_\_\_\_\_ [common shares/warrants] of the Corporation represented by certificate number \_\_\_\_\_\_\_ to which this declaration relates is being made in reliance on Rule 904 of Regulation S under the United States Securities Act of 1933, as amended (the "U.S. Securities Act") and (B) certifies that (1) the seller is not (a) an "affiliate" (as that term is defined in Rule 405 under the U.S. Securities Act) of the Corporation, (b) a "distributor" as defined in Regulation S or (c) an affiliate of a distributor; (2) the offer of such securities was not made to a person in the United States and either (a) at the time the buy order was originated, the buyer was outside the United States, or the seller and any person acting on its behalf reasonably believed that the buyer was outside the United States, or (b) the transaction was executed on or through the facilities of the Toronto Stock Exchange or another designated offshore securities market and neither the seller nor any person acting on its behalf knows that the transaction has been prearranged with a buyer in the United States; (3) neither the seller nor any affiliate of the seller nor any person acting on their behalf has engaged or will engage in any directed selling efforts in the United States in connection with the offer and sale of such securities; (4) the sale is bona fide and not for the purpose of "washing off" the resale restrictions imposed because the securities are "restricted securities" (as that term is defined in Rule 144(a)(3) under the U.S. Securities Act); (5) the seller does not intend to replace securities sold in reliance on Rule 904 of Regulation S with fungible unrestricted securities; and (6) the contemplated sale is not a transaction, or part of a series of transactions which, although in technical compliance with Regulation S, is part of a plan or scheme to evade the registration provisions of the U.S. Securities Act. Terms used herein have the meanings given to them by Regulation S under the U.S

Dated:

Х

Authorized signatory

Name of Seller (please print)

Name of authorized signatory (please print)

Title of authorized signatory (please print)

## Affirmation By Seller's Broker-Dealer (required for sales in accordance with Section (B)(2)(b) above)

Name of Firm

By: \_\_\_\_\_\_Authorized officer

Date:

## Item 1 Name and Address of Company

Titan Medical Inc. (the **"Company"** or **"Titan"**) 170 University Avenue Suite 1000 Toronto, Ontario M5H 3B3

## Item 2 Date of Material Change

April 3, 2018 and April 10, 2018.

## Item 3 News Release

The press releases attached as Schedule "A" and Schedule "B" were disseminated through Marketwired on April 3, 2018 and April 10, 2018 with respect to the material changes.

## Item 4 Summary of Material Change

On April 3, 2018, the Company filed a final short-form prospectus with securities regulators in Ontario, British Columbia and Alberta, with respect to its previously announced offering of units (the "Offering").

On April 10, 2018, the Company announced that it had closed the Offering. The Company sold 33,799,961 units (each, a 'Unit'') under the Offering at a price of CDN \$0.30 per Unit for gross proceeds of \$10,139,988.30. Each Unit is comprised of one common share of the Company (a "Common Share") and one warrant entitling the holder to purchase one Common Share at a price of \$0.35 for 60 months from the closing date of the Offering.

## Item 5 Full Description of Material Change

5.1 Full Description of Material Change

Please see the press releases attached as Schedule "A" and Schedule "B".

5.2 Disclosure for Restructuring Transactions

Not applicable.

## Item 6 Reliance on subsection 7.1(2) of National Instrument 51-102

Not applicable.

## **Item 7 Omitted Information**

Not applicable.

## Item 8 Executive Officer

The following executive officer is knowledgeable about the material changes and may be contacted about this report:

Stephen Randall Chief Financial Officer (416) 548-7522 (ext. 152)

Email: <u>stephen@titanmedicalinc.com</u> Website: <u>www.titanmedicalinc.com</u>

Item 9 Date of Report

April 10, 2017.

Schedule "A" [See Attached]



## **Titan Medical Announces Filing of Final Prospectus**

#### NOT FOR DISTRIBUTION TO UNITED STATES NEWSWIRE SERVICES OR FOR DISSEMINATION IN THE UNITED STATES

TORONTO, April 03, 2018 -- **Titan Medical Inc. ("Titan" or the "Company")** (TSX:TMD) (OTCQB:TITXF), a medical device company focused on the design, development and commercialization of a robotic surgical system for application in minimally invasive surgery ("**MIS**"), announces today that it has filed and been receipted for a final short form prospectus (the "**Final Prospectus**") in connection with the marketed offering (the '**Offering**") of units of the Company (the "**Units**") for minimum gross proceeds of CDN \$10,000,000 and maximum gross proceeds of CDN \$15,000,000. Pursuant to the Offering, Titan will issue Units at a price of CDN \$0.30 per Unit. Each Unit is comprised of one common share of the Company (a "**Common Share**") and one Common Share purchase warrant of the Company (a "**Warrant**"). Each Warrant is exercisable for one Common Share at a price of CDN \$0.35 for a period of 5 years following the initial closing date of the Offering.

The Offering will be undertaken on a best efforts basis pursuant to the terms and conditions of an agency agreement dated April 3, 2018 between the Company and Bloom Burton Securities Inc. (the "Agent"). In connection with the Offering, the Agent will be paid a cash commission equal to 7.0% of the gross proceeds of the Offering and it will be issued that number of non-transferable broker warrants exercisable for Common Shares equal to 7.0% of the number of Units sold in the Offering (in each case excluding any Units sold to certain excluded subscribers). The Agent has been granted the option to offer for sale additional Units (the "**Over-Allotment Units**") at the price issued under the Offering and/or additional Warrants (the "**Over-Allotment Warrants**") at a price of CDN \$0.17 per Over-Allotment Warrant, exercisable in whole or in part at any time and from time to time on the first Closing Date or up to 30 days following the first Closing Date, so long as the aggregate number of Over-Allotment Units and Over-Allotment Warrants does not exceed 15% of the number of Units issued under the Offering.

The Final Prospectus has been filed in each of the provinces of Ontario, British Columbia and Alberta pursuant to National Instrument 44-101 *-Short Form Prospectus Distributions*. In addition, the Units may also be offered for sale in the United States, by or through United States registered broker-dealers appointed by the Agent as subagents, and in certain offshore jurisdictions, in each case under available exemptions from the prospectus and registration requirements of applicable securities laws.

In its press release dated March 7, 2018, the Company stated that it intended to file an amended and restated preliminary short form prospectus (the **Amended and Restated Preliminary Prospectus**"). The Company has not and will not file an Amended and Restated Preliminary Prospectus, electing instead to proceed directly to filing the Final Prospectus announced today.

It is expected that closing of the Offering will occur on or about April 10, 2018, or such other date or dates as the Company and the Agent may agree.

The net proceeds of the Offering (the "Net Proceeds") will be used to fund continued development work in connection with the Company's SPORT Surgical System, as well as for working capital and other general corporate purposes. Please see "Use of Proceeds" in the Final Prospectus, which is available under the Company's profile at www.sedar.com, for further details of the intended use of the Net Proceeds.

The Common Shares are listed on the Toronto Stock Exchange (the '**TSX**') under the symbol "TMD". The TSX has conditionally approved the listing of the Common Shares issuable under the Offering. Listing will be subject to the Company fulfilling all of the requirements of the TSX on or before June 4, 2018.

#### About Titan

Titan is a Canadian public company focused on research and development through to the planned commercialization of computer-assisted robotic surgical technologies for application in MIS. The Company is currently developing the SPORT Surgical System, a single-port robotic surgical system. The SPORT Surgical System is comprised of a surgeon-controlled patient cart that includes a 3D high definition vision system and multi-articulating instruments for performing MIS procedures, and a surgeon workstation that provides the surgeon with an advanced ergonomic interface to the patient cart and a 3D endoscopic view inside the patient's body during MIS procedures. With the SPORT Surgical System, the Company aims to pursue a broad set of surgical indications, including general abdominal, gynecologic and urologic procedures.

For more information, please visit the Company's website at www.titanmedicalinc.com.

## Forward-Looking Statements

This news release contains "forward-looking statements" which reflect the current expectations of management of the Company's future growth, results of operations, performance and business prospects and opportunities. Wherever possible, words such as "may", "would", "could", "will", "anticipate", "believe", "plan", "expect", "intend", "estimate", "potential for" and similar expressions have been used to identify these forward-looking statements. These statements, including with respect to the use of the Net Proceeds and the listing of the Common Shares on the TSX, reflect management's current beliefs with respect to future events and are based on information currently available to management. Forward-looking statements involve significant risks, uncertainties and assumptions. Many factors could cause the Company's actual results, performance or achievements to be materially different from any future results, performance or achievements that may be expressed or implied by such forward-looking statements, including, without limitation, those listed in the "Risk Factors" section of the Final Prospectus and the Company's Annual Information Form dated March 31, 2018 (which may be viewed at www.sedar.com). Should one or more of these risks or uncertainties materialize, or should assumptions underlying the forward-looking statements prove incorrect, actual results, performance, or achievements may vary materially from those expressed or implied by the forward-looking statements contained in this news release. These factors should be considered carefully, and prospective investors should not place undue reliance on the forward-looking statements. Although the forward-looking statements contained in the expective investors that actual results, performance or achievements will be consistent with these forward-looking statements.

## **U.S. Securities Law Caution**

The securities described herein have not been, and will not be, registered under the United States *Securities Act of 1933*, as amended (the "U.S. Securities Act"), or any state securities laws, and accordingly, may not be offered or sold to, or for the account or benefit of, persons in the United States or "U.S. persons", as such term is defined in Regulation S promulgated under the U.S. Securities Act ("U.S. Persons"), except in compliance with the registration requirements of the U.S. Securities Act and applicable state securities requirements or pursuant to exemptions therefrom. This press release does not constitute an offer to sell or a solicitation of an offer to buy any of the Company's securities to, or for the account or benefit of, persons in the United States or U.S. Persons.

## **Contact Information**

LHA Investor Relations Kim Sutton Golodetz (212) 838-3777 kgolodetz@lhai.com

or

Bruce Voss (310) 691-7100 bvoss@lhai.com Schedule "B" [See Attached]



## Titan Medical Announces Closing of Previously Announced Public Offering

## NOT FOR DISTRIBUTION TO UNITED STATES NEWSWIRE SERVICES OR FOR DISSEMINATION IN THE UNITED STATES

TORONTO, April 10, 2018 -- Titan Medical Inc. (the 'Company'') (TSX:TMD) (OTCQB:TITXF), a medical device company focused on the design, development and commercialization of a robotic surgical system for application in minimally invasive surgery ("MIS"), is pleased to announce the closing of its previously announced public offering (the "Offering") pursuant to an agency agreement dated April 3, 2018 between the Company and Bloom Burton Securities Inc. (the 'Agent'').

The Company completed the closing of the Offering on April 10, 2018 and issued 33,799,961 units (the 'Units') for gross proceeds of CDN \$10,139,988.30. Each Unit was issued at a price of CDN \$0.30 per Unit and is comprised of one common share of the Company (a "Common Share") and one warrant entitling the holder to purchase one Common Share at a price of CDN \$0.35 until expiry on April 10, 2023. The net proceeds of the Offering will be used to fund continued development work in connection with the Company's SPORT Surgical System, as well as for working capital and other general corporate purposes.

The Common Shares sold and issued in connection with the closing were listed and posted for trading on the Toronto Stock Exchange (the **TSX**") under the symbol TMD at the opening on April 10, 2018.

The Units were qualified for sale by way of a prospectus dated April 3, 2018 (the 'Prospectus') filed by the Company in the Provinces of British Columbia, Alberta and Ontario.

## About Titan Medical Inc.

Titan Medical Inc. is a Canadian public company focused on research and development through to the planned commercialization of computer-assisted robotic surgical technologies for application in MIS. The Company is currently developing the SPORT Surgical System, a single-port robotic surgical system. The SPORT Surgical System is comprised of a surgeon-controlled patient cart that includes a 3D high definition vision system and multi-articulating instruments for performing MIS procedures, and a surgeon workstation that provides the surgeon with an advanced ergonomic interface to the patient cart and a 3D endoscopic view inside the patient's body during MIS procedures. With the SPORT Surgical System, the Company aims to pursue a broad set of surgical indications, including general abdominal, gynecologic and urologic procedures.

For more information, please visit the Company's website atwww.titanmedicalinc.com.

## **Forward-Looking Statements**

This news release contains "forward-looking statements" which reflect the current expectations of management of the Company's future growth, results of operations, performance and business prospects and opportunities. Wherever possible, words such as "may", "would", "could", "will", "anticipate", "believe", "plan", "expect", "intend", "estimate", "potential for" and similar expressions have been used to identify these forward-looking statements. These statements, including statements with respect to the use of the net proceeds of the Offering, reflect management's current beliefs with respect to future events and are based on information currently available to management. Forward-looking statements involve significant risks, uncertainties and assumptions. Many factors could cause the Company's actual results, performance or achievements to be materially different from any future results, performance or achievements that may be expressed or implied by such forward-looking statements, including, without limitation, those listed in the "Risk Factors" section of the Company's Annual Information Form dated March 31, 2018 and in the Prospectus (which may be viewed at www.sedar.com). Should one or more of these risks or uncertainties materialize, or should assumptions underlying the forward looking statements prove incorrect, actual results, performance, or achievements may vary materially from those expressed or implied by the forward-looking statements contained in this news release. These factors should be considered carefully, and prospective investors should not place undue reliance on the forward-looking statements. Although the forward-looking statements contained in the news release are based upon what management currently believes to be reasonable assumptions, the Company cannot assure prospective investors that actual results, performance or achievements will be consistent with these forward-looking statements.

#### **U.S. Securities Law Caution**

The securities described herein have not been, and will not be, registered under the United States Securities Act of 1933, as amended (the 'U.S. Securities Act"), or any state securities laws, and accordingly, may not be offered or sold to, or for the account or benefit of, persons in the United States or "U.S. persons," as such term is defined in Regulation S promulgated under the U.S. Securities Act ("U.S. Persons"), except in compliance with the registration requirements of the U.S. Securities Act and applicable state securities requirements or pursuant to exemptions therefrom. This press release does not constitute an offer to sell or a solicitation of an offer to buy any of the Company's securities to, or for the account or benefit of, persons in the United States or U.S. Persons.

# **Contact Information**

LHA Investor Relations Kim Sutton Golodetz (212) 838-3777 kgolodetz@lhai.com

or

Bruce Voss (310) 691-7100 bvoss@lhai.com Date: April 13, 2018

To: All Canadian Securities Regulatory Authorities

# Subject: TITAN MEDICAL INC.

Dear Sir/Madam:

We advise of the following with respect to the upcoming Meeting of Security Holders for the subject Issuer:

| Meeting Type :<br>Record Date for Notice of Meeting :<br>Record Date for Voting (if applicable) :<br>Beneficial Ownership Determination Date :<br>Meeting Date :<br>Meeting Location (if available) :<br>Issuer sending proxy related materials directly to NOBO:<br>Issuer paying for delivery to OBO:<br><b>Notice and Access (NAA) Requirements:</b><br>NAA for Beneficial Holders<br>NAA for Registered Holders |              | Annual General and Special Meeting<br>May 10, 2018<br>May 10, 2018<br>June 14, 2018<br>Toronto, ON<br>Yes<br>Yes<br>No |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|------------------------------------------------------------------------------------------------------------------------|
| Voting Security Details:                                                                                                                                                                                                                                                                                                                                                                                            | CUSIP Number | ISIN                                                                                                                   |
| Description<br>COMMON SHARES                                                                                                                                                                                                                                                                                                                                                                                        | 88830X108    | CA88830X1087                                                                                                           |
| Sincerely,                                                                                                                                                                                                                                                                                                                                                                                                          |              |                                                                                                                        |
| Computershare<br>Agent for TITAN MEDICAL INC.                                                                                                                                                                                                                                                                                                                                                                       |              |                                                                                                                        |

Computershare 100 University Avenue, 8th floor Toronto ON, M5J 2Y1 www.computershare.com

## Abstract Highlighting the Early European Experience With Titan Medical's SPORT Surgical System Presented at the Society of American Gastrointestinal and Endoscopic Surgeons Annual Meeting

TORONTO, April 16, 2018 -- **Titan Medical Inc. ("Titan" or the "Company")**(TSX:TMD) (OTCQB:TITXF), a medical device company focused on the design, development and commercialization of a robotic surgical system for application in minimally invasive surgery ("MIS"), announces the presentation of an abstract highlighting the early physician experience with the Company's SPORT Surgical System at the Society of American Gastrointestinal and Endoscopic Surgeons (SAGES) Annual Meeting. Barbara Seeliger, MD, Research Fellow, and Prof. Lee Swanstrom, MD, FACS, Chief Innovations Officer, both from Institute of Image Guided Surgery / IHU Strasbourg in France, authored the abstract titled "Multidisciplinary applications of a new single port robotic platform." The abstract is available for viewing here.

The 16<sup>th</sup> World Congress of Endoscopic Surgery, hosted by the Society of American Gastrointestinal and Endoscopic Surgeons and Canadian Association of General Surgeons, was held in Seattle April 11-14. Comprised of over 6,000 surgeons worldwide, the mission of SAGES is to improve quality patient care through education, research, innovation and leadership, principally in gastrointestinal and endoscopic surgery.

David McNally, President and CEO of Titan Medical, said, "We are pleased to begin setting a foundation of peer-reviewed publications for the SPORT Surgical System with the acceptance and presentation of this multidisciplinary abstract of an early European experience at the SAGES annual meeting. This abstract was the culmination of successful preclinical feasibility studies completed at IHU Strasbourg earlier this year. The abstract highlights the successful completion of critical tasks using the SPORT Surgical System in a variety of procedures, and positive early physician impressions of the rapid learning curve. We believe the acceptance of this peer-reviewed abstract at a well-regarded surgical society such as SAGES further validates the potential and excitement surrounding our single-port surgery platform."

## About Titan Medical Inc.

Titan Medical Inc. is focused on research and development through to the planned commercialization of computer-assisted robotic surgical technologies for application in minimally invasive surgery. The Company is developing the SPORT Surgical System, a single-port robotic surgical system. The SPORT Surgical System is comprised of a surgeon-controlled patient cart that includes a 3D high-definition vision system and multi-articulating instruments for performing MIS procedures, and a surgeon workstation that provides an advanced ergonomic interface to the patient cart and a 3D endoscopic view inside the patient's body. Titan intends to initially pursue focused surgical indications for the SPORT Surgical System, which may include one or more of gynecologic, urologic, colorectal or general abdominal procedures.

For more information, please visit the Company's website atwww.titanmedicalinc.com.

## Forward-Looking Statements

This news release contains "forward-looking statements" which reflect the current expectations of management of the Company's future growth, results of operations, performance and business prospects and opportunities. Wherever possible, words such as "may", "would", "could", "will", "anticipate", "believe", "plan", "expect", "intend", "estimate", "potential for" and similar expressions have been used to identify these forward-looking statements. These statements reflect management's current beliefs with respect to future events and are based on information currently available to management. Forward-looking statements involve significant risks, uncertainties and assumptions. Many factors could cause the Company's actual results, performance or achievements to be materially different from any future results, performance or achievements, including, without limitation, those listed in the "Risk Factors" section of the Company's Annual Information Form dated March 31, 2018 (which may be viewed at www.sedar.com). Should one or more of these risks or uncertainties materialize, or should assumptions underlying the forward-looking statements prove incorrect, actual results, performance, or achievements may vary materially from those expressed or implied by the forward-looking statements contained in this news release. These factors should be considered carefully, and prospective investors should not place undue reliance on the forward-looking statements. Although the forward-looking statements contained in the news release are based upon what management currently believes to be reasonable assumptions, the Company cannot assure current or prospective investors that actual results, performance or achievements will be consistent with these forward-looking statements.

Contacts:

LHA Investor Relations Kim Sutton Golodetz (212) 838-3777 kgolodetz@lhai.com or Bruce Voss (310) 691-7100 bvoss@lhai.com

# TITAN MEDICAL.

## **Titan Medical Announces Closing of Over-Allotment Option**

## NOT FOR DISTRIBUTION TO UNITED STATES NEWSWIRE SERVICES OR FOR DISSEMINATION IN THE UNITED STATES

TORONTO, May 10, 2018 -- Titan Medical Inc. (the 'Company') (TSX:TMD) (OTCQB:TITXF), a medical device company focused on the design, development and commercialization of a robotic surgical system for application in minimally invasive surgery ("MIS"), is pleased to announce that the over-allotment option (the 'Over-Allotment Option') granted to Bloom Burton Securities Inc. as agent for its offering (the 'Offering') of 33,799,961 units (the "Units") at a price of CDN \$0.30 per Unit (the "Offering Price") completed on April 10, 2018, has been exercised, and the Company has sold an additional 5,066,666 Units at the Offering Price for additional gross proceeds to the Company of CDN \$1,519,999.80.

Each Unit consists of one common share of the Company (a 'Common Share') and one common share purchase warrant entitling the holder to purchase one Common Share at a price of CDN \$0.35 until expiry on April 10, 2023. The net proceeds of the Offering, including those raised pursuant to the Over-Allotment Option, will be used to fund continued development work in connection with the Company's SPORT Surgical System, as well as for working capital and other general corporate purposes.

The Common Shares sold and issued in connection with the Over-Allotment Option were listed and posted for trading on the Toronto Stock Exchange (the **TSX**") under the symbol TMD at the opening on May 10, 2018.

The Units were qualified for sale by way of a prospectus dated April 3, 2018 (the 'Prospectus'') filed by the Company in the Provinces of British Columbia, Alberta and Ontario.

## About Titan Medical Inc.

Titan Medical Inc. is a Canadian public company focused on research and development through to the planned commercialization of computer-assisted robotic surgical technologies for application in MIS. The Company is currently developing the SPORT Surgical System, a single-port robotic surgical system. The SPORT Surgical System is comprised of a surgeon-controlled patient cart that includes a 3D high definition vision system and multi-articulating instruments for performing MIS procedures, and a surgeon workstation that provides the surgeon with an advanced ergonomic interface to the patient cart and a 3D endoscopic view inside the patient's body during MIS procedures. With the SPORT Surgical System, the Company aims to pursue a broad set of surgical indications, including general abdominal, gynecologic and urologic procedures.

For more information, please visit the Company's website at www.titanmedicalinc.com.

## **Forward-Looking Statements**

This news release contains "forward-looking statements" which reflect the current expectations of management of the Company's future growth, results of operations, performance and business prospects and opportunities. Wherever possible, words such as "may", "would", "could", "will", "anticipate", "believe", "plan", "expect", "intend", "estimate", "potential for" and similar expressions have been used to identify these forward-looking statements. These statements, including statements with respect to the use of the net proceeds of the Offering, reflect management's current beliefs with respect to future events and are based on information currently available to management. Forward-looking statements involve significant risks, uncertainties and assumptions. Many factors could cause the Company's actual results, performance or achievements to be materially different from any future results, performance or achievements that may be expressed or implied by such forward-looking statements, including, without limitation, those listed in the "Risk Factors" section of the Company's Annual Information Form dated March 31, 2018 and in the Prospectus (which may be viewed at www.sedar.com). Should one or more of these risks or uncertainties materialize, or should assumptions underlying the forward looking statements prove incorrect, actual results, performance, or achievements may vary materially from those expressed or implied by the forward-looking statements contained in this news release. These factors should be considered carefully, and prospective investors should not place undue reliance on the forward-looking statements. Although the forward-looking statements contained in the news release are based upon what management currently believes to be reasonable assumptions, the Company cannot assure prospective investors that actual results, performance or achievements will be consistent with these forward-looking statements.

## **U.S. Securities Law Caution**

The securities described herein have not been, and will not be, registered under the United States Securities Act of 1933, as amended (the 'U.S. Securities Act'), or any state securities laws, and accordingly, may not be offered or sold to, or for the account or benefit of, persons in the United States or "U.S. persons," as such term is defined in Regulation S promulgated under the U.S. Securities Act ("U.S. Persons"), except in compliance with the registration requirements of the U.S. Securities Act and applicable state securities requirements or pursuant to exemptions therefrom. This press release does not constitute an offer to sell or a solicitation of an offer to buy any of the Company's securities to, or for the account or benefit of, persons in the United States or U.S. Persons.

# **Contact Information**

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## TITAN MEDICAL INC. Unaudited Condensed Interim Financial Statements Three Months Ended March 31, 2018 and 2017

(IN UNITED STATES DOLLARS)

|                                          | March 31, 2018 | December 31, 2017 |
|------------------------------------------|----------------|-------------------|
| ASSETS                                   |                |                   |
| CURRENT                                  |                |                   |
| Cash and cash equivalents                | 20,470,379     | 26,130,493        |
| Amounts receivable                       | 35,495         | 75,151            |
| Deposits (Note 6)                        | 4,336,878      | 2,538,434         |
| Prepaid expense                          | 199,115        | 149,593           |
| Total Current Assets                     | 25,041,867     | 28,893,671        |
| Furniture and Equipment                  | -              | 6,714             |
| Patent Rights (Note 3)                   | 825,744        | 774,225           |
| TOTAL ASSETS                             | 25,867,611     | 29,674,610        |
| LIABILITIES                              |                |                   |
| CURRENT                                  |                |                   |
| Accounts payable and accrued liabilities | 2,914,191      | 2,218,352         |
| Warrant liability (Note 2(b) and 5)      | 13,663,582     | 17,849,460        |
| TOTAL LIABILITIES                        | 16,577,773     | 20,067,812        |
| SHAREHOLDERS' EQUITY                     |                |                   |
| Share Capital (Note 4(a))                | 154,883,118    | 154,016,519       |
| Contributed Surplus                      | 5,513,841      | 5,146,784         |
| Warrants (Note 4(b))                     | -              | 741,917           |
| Deficit                                  | (151,107,121)  | (150,298,422)     |
| TOTAL EQUITY                             | 9,289,838      | 9,606,798         |
| TOTAL LIABILITIES & EQUITY               | 25,867,611     | 29,674,610        |
| Commitments (Note 6)                     |                |                   |
| See notes to financial statements        |                |                   |
|                                          |                |                   |

Approved on behalf of the Board:

John E. Barker Interim Chairman David McNally President and CEO

# TITAN MEDICAL INC. Unaudited Condensed Interim Statement of Shareholders' Equity and Deficit For the Periods Ended March 31, 2018 and 2017 (In U.S. Dollars)

|                                           | Share Capital<br>Number | 5  | Share Capital<br>Amount |    | Contributed<br>Surplus |    | Warrants  |    | Deficit         |    | Total<br>Equity |
|-------------------------------------------|-------------------------|----|-------------------------|----|------------------------|----|-----------|----|-----------------|----|-----------------|
| Balance - December 31, 2016               | 166,511,446             | \$ | 112,742,810             | \$ | 3,707,432              | \$ | 855,800   | \$ | (116,711,438)   | \$ | 594,604         |
| Issued pursuant to agency agreement       | 21,467,200              |    | 4,344,727               |    |                        |    |           |    |                 |    | 4,344,727       |
| Share issue expense                       |                         |    | (475,284)               |    |                        |    |           |    |                 |    | (475,284)       |
| Warrants expired during the period        |                         |    | 113,883                 |    |                        |    | (113,883) |    |                 |    | -               |
| Stock based compensation                  |                         |    |                         |    | 243,403                |    |           |    |                 |    | 243,403         |
| Net and Comprehensive loss for the period |                         |    |                         |    |                        |    |           |    | (4,988,274)     |    | (4,988,274)     |
| Balance - March 31, 2017                  | 187,978,646             | \$ | 116,726,136             | s  | 3,950,835              | s  | 741,917   | \$ | (121,699,712)   | \$ | (280,824)       |
|                                           | j j                     |    | - , ,                   |    | - , ,                  |    | . , .     |    | ( ))            |    | ( )- )          |
| Balance - December 31, 2017               | 380,601,684             |    | 154,016,519             |    | 5,146,784              |    | 741,917   |    | (150,298,422)   |    | 9,606,798       |
| Issued Other                              | 225,000                 |    | 66,234                  |    |                        |    |           |    |                 |    | 66,234          |
| Warrants exercised during the period      | 195,000                 |    | 58,448                  |    |                        |    |           |    |                 |    | 58,448          |
| Warrants expired during the period        |                         |    | 741,917                 |    |                        |    | (741,917) |    |                 |    | -               |
| Stock based compensation                  |                         |    |                         |    | 367,057                |    |           |    |                 |    | 367,057         |
| Net and Comprehensive loss for the period |                         |    |                         |    |                        |    |           |    | (808,699)       |    | (808,699)       |
|                                           | -                       |    |                         |    |                        |    |           |    |                 |    |                 |
| Balance - March 31, 2018                  | 381,021,684             | \$ | 154,883,118             | S  | 5,513,841              | ¢  |           | ¢  | (151, 107, 121) | ¢  | 9,289,838       |

|                                                                  |           | e Months Ended<br>arch 31, 2018 | Three Months Ended<br>March 31, 2017 |             |  |
|------------------------------------------------------------------|-----------|---------------------------------|--------------------------------------|-------------|--|
| REVENUE                                                          | <u>\$</u> |                                 | \$                                   | -           |  |
| EXPENSES                                                         |           |                                 |                                      |             |  |
|                                                                  |           |                                 |                                      |             |  |
| Amortization                                                     |           | 11,742                          |                                      | 6,594       |  |
| Consulting fees                                                  |           | 230,112                         |                                      | 162,818     |  |
| Stock based compensation (Note 4(b))                             |           | 367,057                         |                                      | 243,403     |  |
| Insurance                                                        |           | 9,057                           |                                      | 7,931       |  |
| Management salaries and fees                                     |           | 709,024                         |                                      | 625,826     |  |
| Marketing and investor relations                                 |           | 44,617                          |                                      | 61,698      |  |
| Office and general                                               |           | 106,174                         |                                      | 96,301      |  |
| Professional fees                                                |           | 145,780                         |                                      | 145,013     |  |
| Rent                                                             |           | 24,794                          |                                      | 25,537      |  |
| Research and Development                                         |           | 3,274,074                       |                                      | 2,946,323   |  |
| Travel                                                           |           | 72,287                          |                                      | 80,195      |  |
| Foreign exchange gain                                            |           | (515,153)                       |                                      | (14,816)    |  |
|                                                                  |           | 4,479,565                       |                                      | 4,386,823   |  |
| FINANCE INCOME (COST)                                            |           |                                 |                                      |             |  |
| Interest                                                         |           | 28,292                          |                                      | 2,133       |  |
| Gain(Loss) on change in fair value of warrants (Note 2(b) and 5) |           | 3,642,574                       |                                      | (461,996)   |  |
| Warrant liability issue cost                                     |           | -                               |                                      | (141,588)   |  |
|                                                                  |           | 3,670,866                       |                                      | (601,451)   |  |
| NET AND COMPREHENSIVE LOSS FOR THE PERIOD                        | \$        | 808,699                         | \$                                   | 4,988,274   |  |
|                                                                  |           | (0.00)                          | <b>A</b>                             | (0.02)      |  |
| BASIC AND DILUTED LOSS PER SHARE                                 | \$        | (0.00)                          | \$                                   | (0.03)      |  |
| WEIGHTED AVERAGE NUMBER OF COMMON SHARES, Basic and Diluted      |           | 380,891,962                     |                                      | 170,089,313 |  |
| See notes to financial statements                                |           |                                 |                                      |             |  |

|                                                          | <br>Three Months Ended<br>March 31, 2018 |    | Three Months Ended<br>March 31, 2017 |  |  |
|----------------------------------------------------------|------------------------------------------|----|--------------------------------------|--|--|
| OPERATING ACTIVITIES                                     |                                          |    |                                      |  |  |
| Net loss for the period                                  | \$<br>(808,699)                          | \$ | (4,988,274                           |  |  |
| Items not involving cash:                                |                                          |    |                                      |  |  |
| Amortization                                             | 11,742                                   |    | 6,594                                |  |  |
| Stock based compensation                                 | 367,057                                  |    | 243,403                              |  |  |
| Other share compensation                                 | 66,234                                   |    |                                      |  |  |
| Warrant liability-fair value adjustment                  | (3,642,574)                              |    | 461,996                              |  |  |
| Warrant liability-foreign exchange adjustment            | (514,355)                                |    | (26,080                              |  |  |
| Changes in non-cash working capital items:               |                                          |    |                                      |  |  |
| Amounts receivable, prepaid expenses and deposits        | (1,808,310)                              |    | 131,152                              |  |  |
| Accounts payable and accrued liabilities                 | 695,839                                  |    | (2,197                               |  |  |
| Cash used in operating activities                        | (5,633,066)                              |    | (4,173,405                           |  |  |
| FINANCING ACTIVITIES                                     |                                          |    |                                      |  |  |
| Net proceeds from issuance of common shares and warrants | 29,500                                   |    | 5,167,253                            |  |  |
| Cash provided by financing activities                    | 29,500                                   |    | 5,167,253                            |  |  |
| INVESTING ACTIVITIES                                     |                                          |    |                                      |  |  |
| Cost of Patents                                          | (56,548)                                 |    | (27,006                              |  |  |
| Cash used in investing activities                        | (56,548)                                 |    | (27,006                              |  |  |
| INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS         | (5,660,114)                              |    | 966,842                              |  |  |
| CASH AND CASH EQUIVALENTS, BEGINNING OF PERIOD           | 26,130,493                               |    | 4,339,911                            |  |  |
| CASH AND CASH EQUIVALENTS, END OF PERIOD                 | \$<br>20,470,379                         | \$ | 5,306,753                            |  |  |
| CASH AND CASH EQUIVALENTS COMPRISE:                      |                                          |    |                                      |  |  |
| CASH AND CASH EQUIVALENTS COMINISE.                      |                                          |    |                                      |  |  |
| Cash                                                     | \$<br>227,964                            | \$ | 260,054                              |  |  |
| Cash Equivalents                                         | 20,242,415                               |    | 5,046,699                            |  |  |
|                                                          | \$<br>20,470,379                         | \$ | 5,306,75                             |  |  |

# 1. DESCRIPTION OF BUSINESS

#### **Nature of Operations:**

The Company's business continues to be in the research and development stage and is focused on the continued research and development of the next generation surgical robotic platform. In the near term, the Company will continue efforts to complete product development and proceed to pre-clinical and confirmatory human studies and satisfaction of appropriate regulatory requirements. Upon receipt of regulatory approvals, the Company will transition from the research and development stage to the commercialization stage. The completion of these latter stages will be subject to the Company receiving additional funding in the future.

The Company is incorporated in Ontario, Canada in accordance with the Business Corporations Act. The address of the Company's corporate office and its principal place of business is Toronto, Canada.

### **Basis of Preparation:**

# (a) Statement of Compliance

These condensed interim financial statements for the three months ending March 31, 2018 have been prepared in accordance with International Accounting Standard 34, Interim Financial Reporting ("IAS 34").

These condensed interim financial statements should be read in conjunction with the Company's 2017 annual financial statements which have been prepared in accordance with International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board ("IASB").

The condensed interim financial statements have been prepared using accounting polices consistent with those used in the Company's 2017 annual financial statements as well as any amendments, revisions and new IFRS, which have been issued subsequently and are appropriate to the Company.

The condensed interim financial statements were authorized for issue by the Board of Directors on May 11, 2018.

#### (b) Basis of Measurement

These condensed interim financial statements have been prepared on the historical cost basis except for the revaluation of the warrant liability, which is measured at fair value.

### (c) Functional and Presentation Currency

These condensed interim financial statements are presented in United States dollars ("U.S."), which is the Company's functional and presentation currency.

### 2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

### (a) Use of Estimates and Judgements

The preparation of financial statements in conformity with IAS 34, Interim Financial Reporting requires management to make estimates and assumptions that affect the reported amount of assets and liabilities and disclosure of provisions at the date of the condensed interim financial statements and the reported amount of expenses during the year. Financial statement items subject to significant judgement include, the measurement of stock based compensation and the fair v alue estimate of the initial measurement of new warrant liabilities and the remeasurement of unlisted warrant liabilities. While management believes that the estimates and assumptions are reasonable, actual results may differ.

## 2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

In assessing whether the going concern assumption is appropriate, management considers all available information about the future, which is at least, but not limited to, twelve months from the end of the reporting period. The Company expects that approximately US \$16 million in incremental funding, will be required in addition to the proceeds of the offering completed on April 10, 2018, for the next 12 months to maintain its currently anticipated pace of development. If additional funding is not available, the pace of the Company's product development plan may be reduced. However, based on internal forecasts, Management believes that the Company has sufficient funds to meet its obligations under a reduced development plan, if necessary, for the ensuing twelve months.

#### Fair Value

The Black-Scholes model used by the Company to determine fair values of stock options and warrants was developed for use in estimating the fair value of the stock options and warrants.

### (b) Warrant Liability

In accordance with IAS 32, because the exercise prices of new warrants issued, after the Company's adoption of the U.S. dollar as its functional currency and presentation currency, as well as the warrants issued from the exercise of broker warrants, are not a fixed amount as they are denominated in a currency (Canadian dollar) other than the Company's functional currency (U.S. dollar), the warrants are accounted for as a derivative financial liability. Each Warrant Liability is initially measured at fair value and subsequent changes in fair value are recorded through Net and Comprehensive Loss for the year. The fair value of these warrants was determined initially using a comparable warrant quoted in an active market, adjusted for differences in the terms of the warrant. At March 31, 2018, the Warrant Liability of listed warrants was adjusted to fair value measured at the market price of the listed warrants, the unlisted warrants were adjusted to fair value using the Black-Scholes formula.

#### (c) Fair Value Measurement

The accounting guidance for fair value measurements prioritizes the inputs used in measuring fair value into the following hierarchy:

Level 1 - Quoted prices (unadjusted) in active markets for identical assets or liabilities;

Level 2 – Inputs other than quoted prices included within Level 1 that are directly or indirectly observable:

Level 3 – Unobservable inputs in which little or no market activity exists, therefore requiring an entity to develop its own assumptions about the assumptions that market participants would use in pricing.

The fair value of the listed and unlisted Warrant liability is initially based on level 2 significant observable inputs and at March 31, 2018 is based on level 1, quoted prices (unadjusted) for listed warrants and level 2 for unlisted warrants.

#### New accounting standards applied

#### **IFRS 9 Financial Instruments**

Effective January 1, 2018, the Company adopted IFRS 9, "Financial Instruments", which replaced IAS 39, "Financial Instruments: Recognition and Measurement". The adoption of IFRS 9 did not have a material impact on the measurement and carrying values of the Company's financial instruments, including cash and cash equivalents, amounts receivable, accounts payable and accrued liabilities and warrant liability.

6

# 2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

#### IFRS 15 Revenue from Contracts with Customers

Effective January 1, 2018, the Company adopted IFRS 15, "Revenue from Contracts With Customers" ("IFRS 15") replacing IAS 11, "Construction Contracts", IAS 18, "Revenue" and several revenue-related interpretations. The adoption of IFRS 15 does not have an impact on the financial statements of the Company.

# 3. PATENT RIGHTS

| Cost                             |              |
|----------------------------------|--------------|
| Balance at December 31, 2017     | \$ 978,126   |
| Additions                        | 56,548       |
| Balance at March 31, 2018        | \$ 1,034,674 |
| Amortization & Impairment Losses |              |
| Balance at December 31, 2017     | \$ 203,901   |
| Amortization for the period      | 5,029        |
| Balance at March 31, 2018        | \$ 208,930   |
| Net Book Value                   |              |
| At December 31, 2017             | \$ 774,225   |
| At March 31, 2018                | \$ 825,744   |
|                                  |              |

## 4. SHARE CAPITAL

a) Authorized: unlimited number of common shares, no par value

Issued: 381,021,684 (December 31, 2017: 380,601,684)

Exercise prices of u nits, warrants and options are presented in Canadian currency as they are exercisable in Canadian dollars.

During the year ended December 31, 2017, 52,654,224 warrants had been exercised for total proceeds of \$9,438,577. The fair value of the exercised warrants had a value of \$7,953,581 which was reclassed from warrant liability to common stock.

On December 5, 2017 Titan completed an offering of securities made pursuant to an agency agreement dated November 30, 2017 between the Company and Bloom Burton Securities Inc. (the "Agent"). The company sold 46,000,000 Units under the Offering at a price of CDN \$0.50 per Unit for gross proceeds of approximately \$18,137,800 (\$16,517,424 net of closing costs including cash commission of \$1,246,185 paid in accordance with the terms of the agency agreement). Each Unit consisted of one Common Share of the Company and one Common Share purchase warrant, each warrant entitles the holder thereof to acquire one Common Share of the Company at an exercise price of CDN \$0.60 and expiring December 5, 2022. The warrants were valued at \$5,223,686 based on the value determined by the Black-Scholes model and the balance of \$12,914,114 was allocated to common shares.

Pursuant to the agency agreement in addition to the cash commission paid to the Agent, broker warrants were issued to the Agent which entitle the holder to purchase 3,160,500 Common Shares at a price of CDN \$0.50 per share prior to expiry on December 5, 2019.

On October 31, 2017 Titan completed the final closing of a private placement led by a group of U.S. robotic surgeons. 13,385,900 common shares of Titan were issued at a subscription price of CDN \$0.25 per Common Share for gross proceeds of \$2,677,326.

On June 29, 2017 Titan completed an offering of securities made pursuant to an agency agreement dated June 26, 2017 between the Company and Bloom Burton Securities Inc. (the "Agent"). The Company sold 48,388,637 Units under the Offering at a price of CDN \$0.15 per Unit for gross proceeds of approximately \$5,576,357 (\$4,838,002 net of closing costs including cash commission of \$382,689 paid in accordance with the terms of the agency agreement). Each Unit consisted of one Common Share of the Company and one Common Share purchase warrant, each warrant entitles the holder thereof to acquire one

Common Share of the Company at an exercise price of CDN \$0.20 and expiring June 29, 2022. The warrants were valued at \$2,788,274 based on the value determined by the Black-Scholes model and the balance of \$2,788,083 was allocated to common shares.

Pursuant to the agency agreement, in addition to the cash commission paid to the Agent, broker warrants were issued to the Agent which entitle the holder to purchase 3,285,986 Common Shares at a price of CDN \$0.15 per share prior to expiry on June 29, 2019.

On July 21, 2017 Titan completed a second closing of an offering of securities made pursuant to an agency agreement dated June 26, 2017 between the Company and Bloom Burton Securities Inc. (the "Agent"). The Company sold an additional 11,117,000 Units under the Offering at a price of CDN \$0.15 per Unit for gross proceeds of approximately \$1,328,871 (\$1,200,788 net of closing costs including cash commission of \$93,021 paid in accordance with the terms of the agency agreement). Each Unit consisted of one Common Share of the Company and one Common Share purchase warrant, each warrant entitles the holder thereof to acquire one Common Share of the Company at an exercise price of CDN \$0.20 and expiring June 29, 2022. The warrants were valued at \$575,844 based on the value determined by the Black-Scholes model and the balance of \$753,027 was allocated to common shares.

Pursuant to the agency agreement in addition to the cash commission paid to the Agent, broker warrants were issued to the Agent which entitle the holder to purchase 778,190 Common Share at a price of CDN \$0.15 per share prior to expiry on June 29, 2019.

On March 16, 2017 Titan completed an offering of securities made pursuant to an agency agreement dated March 10, 2017 between the Company and Bloom Burton Securities Inc. (the "Agent"). The Company sold 21,467,200 Units under the Offering at a price of CDN \$0.35 per Unit for gross proceeds of approximately \$5,642,537 (\$5,039,817 net of closing costs including cash commission of \$394,316 paid in accordance with the terms of the agency agreement). Each Unit consisted of one Common Share of the Company and (i) one-half of one Common Share purchase warrant, each whole warrant entitling the holder thereof to acquire one Common Share of the Company at an exercise price of CDN \$0.50 and expiring March 16, 2019, and (ii) one-half of one Common Share of the Company at an exercise price of CDN \$0.50 and expiring March 16, 2021. The warrants were valued at \$1,297,810 based on the value determined by the Black-Scholes model and the balance of \$4,344,727 was allocated to common shares.

Pursuant to the agency agreement, in addition to the cash commission paid to the Agent, broker warrants were issued to the Agent which entitle the holder to purchase 1,500,155 Common Shares at a price of CDN \$0.35 per share prior to expiry on March 16, 2019.

On November 23, 2015 Titan closed a private placement of 4,290,280 Common Shares to Longtai Medical Inc. at a subscription price of CDN \$1.23 per common share for gross proceeds of \$4,000,000. Under the Agreement, Titan granted to Longtai exclusive rights to negotiate an exclusive marketing, sales and distribution agreement for Titan's SPORT Surgical System in the Asia Pacific region. Longtai paid to Titan \$2,000,000 as a deposit toward the Distributorship Agreement.

As the parties were not able to reach consensus as to the Distribution Agreement by the agreed upon date, the deposit became due for repayment to Longtai. On August 24, 2017 Titan completed a subscription agreement with Longtai for the equity conversion of Longtai's \$2.0 million deposit. Under the terms of the subscription agreement dated July 31, 2017, Titan issued to Longtai 16,892,000 Units at an assigned issue price of CDN \$0.15 per Unit. Each Unit consists of one common share and one common share purchase warrant, with each warrant exercisable for one Common Share at an exercise price of CDN \$0.20 per warrant and will expire August 24, 2022. The warrants were valued at \$822,372 based on the value determined by the Black-Scholes model.

The common shares were valued at \$1,887,411 based on the market value on August 24, 2017 of CDN \$0.14. The warrant and the common share were valued at fair value in accordance with International Financial Reporting Interpretations Committee Interpretation #19-Extinguishing Financial Liabilities ("IFRIC 19"). A loss of \$709,782 was incurred on extinguishment which is included in the Gain (Loss) on change in value of warrant liability in the statement of net and comprehensive loss.

# b) Warrants, Stock Options and Compensation Options

Titan has reserved and set aside up to 10% of the issued and outstanding shares of Titan for granting of options to employees, officers, consultants and advisors. At March 31, 2018, 12,185,038 common shares (December 31, 2017: 20,311,899) were available for issue in accordance with the Company's stock option plan. The terms of these options are determined by the Board of Directors. A summary of the status of the Company's outstanding stock options as of March 31, 2018 and March 31, 2017 and changes during the periods ended on those dates is presented in the following table:

|                   |                            | Three Months Ended<br>March 31, 2018 |                                  |                            | Three Months Ended<br>March 31,2018 |    |                                 |  |
|-------------------|----------------------------|--------------------------------------|----------------------------------|----------------------------|-------------------------------------|----|---------------------------------|--|
|                   | Number of<br>Stock Options |                                      | hted-average<br>cise Price (CDN) | Number of<br>Stock Options |                                     |    | hted-average<br>ise Price (CDN) |  |
| Balance Beginning | 17,748,269                 | \$                                   | 0.71                             | 7,202,2                    | 50                                  | \$ | 1.10                            |  |
| Granted           | 8,218,452                  | \$                                   | 0.50                             | 9,825,5                    | 72                                  | \$ | 0.55                            |  |
| Expired/Forfeited | (49,591)                   | \$                                   | 0.83                             | (802,5                     | 62)                                 | \$ | 1.19                            |  |
| Balance Ending    | 25,917,130                 | \$                                   | 0.64                             | 16,225,2                   | 60                                  | \$ | 0.76                            |  |

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The weighted-average remaining contractual life and weighted-average exercise price of options outstanding and of options exercisable as at March 31, 2018 are as follows:

|                         | Options O             | Outstanding |                                                           |                        |
|-------------------------|-----------------------|-------------|-----------------------------------------------------------|------------------------|
| Exercise<br>Price (CDN) | Number<br>Outstanding |             | Weighted-average<br>remaining<br>contractual life (years) | Options<br>Exercisable |
|                         | \$0.15                | 568,059     | 5.66                                                      | 468,059                |
|                         | \$0.16                | 91,206      | 2.46                                                      | 91,206                 |
|                         | \$0.32                | 33,150      | 2.52                                                      | 33,150                 |
|                         | \$0.39                | 200,000     | 2.68                                                      | 100,000                |
|                         | \$0.40                | 58,429      | 2.68                                                      | 58,429                 |
|                         | \$0.43                | 1,500,000   | 6.05                                                      | -                      |
|                         | \$0.48                | 568,493     | 6.61                                                      | -                      |
|                         | \$0.50                | 500,000     | 5.86                                                      | 125,000                |
|                         | \$0.50                | 8,218,452   | 6.81                                                      | -                      |
|                         | \$0.56                | 663,368     | 0.34                                                      | 663,368                |
|                         | \$0.57                | 8,325,572   | 5.80                                                      | 2,081,393              |
|                         | \$0.96                | 305,107     | 0.72                                                      | 305,107                |
|                         | \$1.00                | 3,171,558   | 3.40                                                      | 1,716,183              |
|                         | \$1.02                | 183,587     | 2.73                                                      | 146,658                |
|                         | \$1.08                | 564,292     | 2.83                                                      | 564,292                |
|                         | \$1.39                | 19,746      | 1.71                                                      | 19,746                 |
|                         | \$1.51                | 16,796      | 2.37                                                      | 16,796                 |
|                         | \$1.72                | 461,139     | 2.19                                                      | 368,381                |
|                         | \$1.76                | 106,096     | 0.93                                                      | 106,096                |
|                         | \$1.94                | 362,080     | 1.14                                                      | 362,080                |
|                         |                       | 25,917,130  | 5.37                                                      | 7,225,944              |

The weighted average exercise price of options outstanding is CDN \$0.64 and CDN \$0.85 for options that are exercisable.

Options are g ranted to Directors, Officers, Employees and Consultants at various times. Options are to be settledby physical delivery of shares.

| Grant date/Person entitled                        | Number of Options | Vesting Conditions                                            | <b>Contractual life of Options</b> |
|---------------------------------------------------|-------------------|---------------------------------------------------------------|------------------------------------|
| January 17, 2017, option grants to Employees      | 8,325,572         | Vest as to ¼ of the total number of Options granted, every    | 7 years                            |
|                                                   |                   | year from Option Date                                         |                                    |
| February 7, 2017 option grants to Employees       | 500,000           | Vest as to 1/4 of the total number of Options granted, every  | 7 years                            |
|                                                   |                   | year from Option Date                                         |                                    |
| April 17, 2017, option grants to Employees        | 1,500,000         | Vest as to 1/4 of the total number of Options granted, every  | 7 years                            |
|                                                   |                   | year from Option Date                                         |                                    |
| September 7, 2017, options granted to Consultants | 200,000           | Half vest in 3 months and the remaining half in 6 months      | 3 years                            |
| September 7, 2017, options granted to Directors   | 368,059           | immediately                                                   | 7 years                            |
| September 15,2017, options granted to Consultants | 91,206            | immediately                                                   | 3 years                            |
| October 6, 2017, options granted to Consultants   | 33,150            | immediately                                                   | 3 years                            |
| November 8, 2017 option grants to Employees       | 568,493           | Vest as to 1/4 of the total number of Options granted, every  | 7 years                            |
|                                                   |                   | year from Option Date                                         | -                                  |
| December 4, 2017, options granted to Consultants  | 58,429            | immediately                                                   | 3 years                            |
| December 4, 2017, options granted to Consultants  | 200,000           | Half vest immediately and the remaining half in 12 months     | 3 years                            |
| January 19, 2018 option grants to Employees       | 8,218,452         | Options will vest the earlier of commercialization or 3 years | s 7 years                          |
|                                                   |                   | from grant date.                                              | -                                  |

# Inputs for Measurement of Grant Date Fair Values

The grant date fair value of all share-based payment plans was measured based on the Black-Scholes formula. Expected volatility was estimated by considering historic average share price volatility. The inputs used in the measurement of fair values at grant date of the share-based option plan are as follows:

|                                                     | <br>March 31, 2018 | March 31,2017      |
|-----------------------------------------------------|--------------------|--------------------|
|                                                     |                    |                    |
| Fair Value at grant date (CDN)                      | \$<br>0.25         | \$ 0.300 - \$0.342 |
| Share price at grant date (CDN)                     | \$<br>0.46         | \$ 0.34 - \$0.54   |
| Exercise price (CDN)                                | \$<br>0.50         | \$ 0.43 - \$0.57   |
| Expected Volatility                                 | 88.1%              | 82.4% - 82.8%      |
| Option Life                                         | 3 years            | 4 years            |
| Expected dividends                                  | nil                | nil                |
| Risk-free interest rate (based on government bonds) | 1.86%              | 0.89% - 1.01%      |
|                                                     |                    |                    |

The following is a summary of outstanding warrants included in Shareholder's Equity as at March 31, 2018 and March 31, 2017 and changes during the periods then ended.

|                                                                         | Three Months Ended<br>March 31, 2018<br>Number of |    | Three Months Ended<br>March 31, 2017<br>Number of |           |    |           |
|-------------------------------------------------------------------------|---------------------------------------------------|----|---------------------------------------------------|-----------|----|-----------|
|                                                                         | Warrants                                          |    | Amount                                            | Warrants  |    | Amount    |
| Opening Balance                                                         | 5,260,705                                         | \$ | 741,917                                           | 5,651,434 | \$ | 855,800   |
| Expired during the year Exercise Price CDN \$1.25 Expiry March 18, 2018 | (5,260,705)                                       |    | (741,917)                                         | -         |    | -         |
| Expired during the year Exercise Price CDN \$1.77 Expiry March 14, 2017 | -                                                 |    | <u> </u>                                          | (390,729) |    | (113,883) |
| Ending Balance                                                          | -                                                 | \$ | <u> </u>                                          | 5,260,705 | \$ | 741,917   |
|                                                                         |                                                   |    |                                                   |           |    | 12        |

# 5. WARRANT LIABILITY

|                                              |                       | Three Months Ended<br>March 31, 2018 |             | Year Ended<br>December 31, 201 |    |             |
|----------------------------------------------|-----------------------|--------------------------------------|-------------|--------------------------------|----|-------------|
|                                              | Number of<br>Warrants |                                      | Amount      | Number of<br>Warrants          |    | Amount      |
| Opening Balance                              | 147,996,929           | \$                                   | 17,849,460  | 77,451,086                     | \$ | 2,365,691   |
| Issue of warrants expiring, March 16, 2019   | -                     |                                      | -           | 10,733,600                     |    | 572,326     |
| Issue of warrants expiring, March 16, 2021   | -                     |                                      | -           | 10,733,600                     |    | 725,484     |
| Issue of warrants expiring, June 29, 2022    | -                     |                                      | -           | 59,505,637                     |    | 3,364,118   |
| Issue of warrants expiring, August 24, 2022  | -                     |                                      | -           | 16,892,000                     |    | 822,372     |
| Issue of warrants expiring, December 5, 2022 | -                     |                                      | -           | 46,000,000                     |    | 5,223,686   |
| Warrants exercised during the year           | (195,000)             |                                      | (28,949)    | (52,654,224)                   |    | (7,953,581) |
| Warrants expired during the year             | -<br>-                |                                      |             | (20,664,770)                   |    | -           |
| Foreign exhange adjustment during the year   |                       |                                      | (514,355)   | -                              |    | 305,475     |
| Fair value adjustment during the year        |                       |                                      | (3,642,574) |                                |    | 12,423,889  |
| Ending Balance                               | 147,801,929           | \$                                   | 13,663,582  | 147,996,929                    | \$ | 17,849,460  |

In addition to the warrants listed above, at March 31, 2018, the Company has issued and outstanding, 6,230,224 broker unit warrants expiring between April 14, 2018 and December 5, 2019.

# 6. COMMITMENTS

The Company has 4,477 square feet leased at a former location for CDN \$4,673 per month through January 31, 2019. This space has been sublet for CDN \$4,099 per month through the lease term.

For its corporate office located at 170 University Avenue, Toronto Ontario, effective September 18, 2017 the Company extended its lease term for a period of 22 months, commencing February 1, 2018 at a monthly rent of CDN \$9,969.

As a part of its program of research and development around the SPORT Surgical System, the Company has outsourced certain aspects of the design and development to a U.S. based technology and development company. At March31, 2018 \$7,244,577 in purchase orders remain outstanding. The Company also has on deposit with this same U.S. supplier \$4,232,078 to be applied against future invoices. Commitments with another U.S supplier of technical services totaling \$145,800, also remain outstanding at March 31, 2018. In addition, we maintain a deposit of \$104,800 with another U.S based development company.

# 7. RELATED PARTY TRANSACTIONS

During the three months ended March 31, 2018, transactions between the Company and directors, officers and other related parties were related to compensation matters in the normal course of operations and are measured at the exchange amount, which is the amount of consideration established and agreed to by the related parties.

Compensation to the Executive Officers amounted to \$594,626 for the three month ended March 31, 2018 compared to \$367,180 for the same period in 2017.

Officers and Directors of the Company control approximately 0.31% of the Company.

|                           | March 31, 2018   |      |                  |      |
|---------------------------|------------------|------|------------------|------|
|                           | Number of Shares | %    | Number of Shares | %    |
| John Barker               | 711,432          | 0.19 | 711,432          | 0.19 |
| Martin Bernholtz          | -                | -    | 3,071,500        | 0.81 |
| David McNally             | 50,000           | 0.01 | 50,000           | 0.01 |
| Stephen Randall           | 357,307          | 0.09 | 357,307          | 0.09 |
| John Schellhorn           | 8,826            | -    | 8,826            | -    |
| Bruce Wolff               | 60,299           | 0.02 | 60,299           | 0.02 |
| Total                     | 1,187,864        | 0.31 | 4,259,364        | 1.12 |
| Common Shares Outstanding | 381,021,684      | 100% | 380,601,684      | 100% |

# 8. EVENTS AFTER THE REPORTING DATE

On April 10, 2018 Titan completed an offering of securities made pursuant to an agency agreement dated April 3, 2018 between the Company and Bloom Burton Securities Inc. (the "Agent"). The Company sold 33,799,961 Units under the Offering at a price of CDN \$0.30 per Unit for gross proceeds of approximately \$8,035,941. Each Unit consisted of one Common Share of the Company and one Common Share purchase warrant, each warrant entitles the holder thereof to acquire one Common Share of the Company at an exercise price of CDN \$0.35 and expiring April 10, 2023. The warrants were valued at \$4,553,700 based on the value determined by the Black-Scholes model and the balance of \$3,482,241 was allocated to common shares.

On May 10, 2018 Titan announced the completion of the over-allotment option granted to Bloom Burton Securities Inc. as agent for its offering at a price of CDN \$0.30 per Unit completed on April 10, 2018 was exercised and the Company sold an additional 5,066,666 Units at the offering price for additional gross proceeds of \$1,189,856.

# TITAN MEDICAL INC.

#### MANAGEMENT'S DISCUSSION AND

#### ANALYSIS

#### FOR THE THREE MONTHS ENDED MARCH 31, 2018

### (IN UNITED STATES DOLLARS)

#### This Management's Discussion and Analysis ("MD&A") is dated May 11, 2018.

This MD&A provides a review of the performance of Titan Medical Inc. ("Titan" or the "Company") and should be read in conjunction with its unaudited condensed interim financial statements for the three months ended March 31, 2018 (and the notes thereto) (the "Interim Financial Statements"). The Interim Financial Statements have been prepared in accordance with International Financial Reporting Standards 34, Interim Financial Reporting ("IAS 34"). All financial figures are in United States Dollars except where otherwise noted.

### Internal Control over Financial Reporting

During the three months ended March 31, 2018, no changes were made to the Company's internal control over financial reporting that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

#### Forward-Looking Statements

This discussion includes certain statements that may be deemed "forward-looking statements". All statements in this discussion other than statements of historical facts that address future events, developments or transactions that the Company expects, are forward-looking statements. These forward-looking statements are made as of the date of this MD&A. Forward-looking statements are frequently, but not always, identified by words such as "expects", "expected", "expectation", "anticipates", "believes", "intends", "estimates", "predicts", "potential", "targeted", "plans", "possible", "milestones", "objectives" and similar expressions, or statements that events, conditions or results "will", "may", "could", or "should" occur or be achieved. Forward-looking statements that appear in this MD&A include: the Company is committed to developing its robotic surgical system with the objective of substantially improving upon minimally invasive surgery; the Company aims to pursue a broad set of surgical indications for the SPORT Surgical System, including general abdominal, gynecologic, urologic and colorectal procedures; the Company intends to initially pursue focused surgical indications for the SPORT Surgical System, which may include one or more of gynecologic, urologic, colorectal or general abdominal procedures; the SPORT Surgical System is being developed with the goal of inserting the interactive multi-articulating instruments and the 3D high definition vision system into the patient's body cavity through a single incision; the Company continues to explore in-licensing opportunities for technologies that may be used in conjunction with the Company's robotic surgical system; the Company anticipates expanding its patent portfolio by filing patent applications as it progresses in the development of robotic surgical technologies and by licensing suitable technologies; the Company's current plan is to focus on the development and commercialization of the SPORT Surgical System at estimated incremental costs and according to the timeline as set forth in the table below; the Company has decided to build additional prototypes and develop more advanced instruments and training systems for expanded use for additional surgical procedures; the Company intends to utilize a direct sales force and/or distribution partner(s) to initiate marketing the SPORT Surgical System to hospitals; the Company has not deviated from its plan to use the net proceeds from certain offerings towards the ongoing development and commercialization of its SPORT Surgical System and general working capital purposes; the Company's expectation that confirmatory human clinical data will be required for regulatory submissions; Titan will continue its pursuit of key strategic relationships, carrying on efforts to secure its intellectual property through the patent and licensing process.

Although the Company believes the expectations expressed in such forward-looking statements are based on reasonable assumptions, such statements are not guarantees of future performance and actual results or developments may differ materially from those in the forward-looking statements. Forward-looking statements are statements about the future and are inherently uncertain, and actual results of the Company or other future events or conditions may differ materially from those reflected in the forward-looking statements due to a variety of risks, uncertainties and other factors, such as current global financial conditions, dependence on key personnel, conflicts of interest, obtaining of or cost of additional financing, strategic alliances, uncertainty as to product development and commercialization milestones, results of operations, competition, technological advancements, rapidly changing markets, uncertain market, uncertain acceptance of the Company's technology or intellectual property, infringement of intellectual property rights, scope and cost of insurance and uninsured risks, risks associated with the Company entering into additional long-term contractual arrangements, ability to license other intellectual property rights, government regulation, changes in government policy, changes in accounting and tax rules, regulatory inquiries, requirements and approvals, contract fluctuations. Please also refer to the risk factors set forth starting on page 16 of the Company's Annual Information Form for the 2017 fiscal year, available on SEDAR at www.sedar.com, which are expressly incorporated by reference into the MD&A.

There may be other factors that cause actions, events or results not to be as anticipated, estimated or intended. Other than as specifically required by law, the Company undertakes no obligation to update any forward-looking statement to reflect events or circumstances after the date on which such statement is made, or to reflect the occurrence of unanticipated events, whether as a result of new information, future events or results or otherwise. Investors are cautioned that any such statements are not guarantees of future performance and that actual results or developments may differ materially from those projected in the forward-looking statements. Accordingly, investors should not place undue reliance on forward-looking statements.

## History and Business

The Company is the successor corporation formed pursuant to two separate amalgamations under the Business Corporations Act (Ontario) on July 28, 2008. Titan does not have any subsidiaries.

The address of the Company's corporate office and its principal place of business is 170 University Avenue, Suite 1000, Toronto, Ontario, Canada M5H 3B3.

#### **Overall Performance**

The Company's business is focused on research and development through to the planned commercialization of computer-assisted robotic surgical technologies for application in minimally invasive surgery ("MIS"). The Company is currently developing the SPORT Surgical System, a single-port robotic surgical system. The SPORT Surgical System is comprised of a surgeon- controlled patient cart that includes a 3D high definition vision system and multi-articulating instruments for performing MIS procedures, and a surgeon workstation that provides the surgeon with an advanced ergonomic interface to the patient cart and a 3D endoscopic view inside the patient's body during MIS procedures. The Company intends to initially pursue focused surgical indications for the SPORT Surgical System, which may include one or more of gynecologic, urologic, colorectal or general abdominal procedures.

Development of the SPORT Surgical System has proceeded in response to "voice of customer" feedback and, consultation with medical technology development firms and input from the Company's Surgeon Advisory Board (the "Surgeon Advisory Board") comprised of key opinion leaders in targeted fields. This approach has allowed the Company to design a robotic surgical system that is intended to include the traditional advantages of robotic surgery, including 3D stereoscopic imaging and restoration of instinctive control, as well as new and enhanced features, including an advanced surgeon workstation incorporating a 3D high definition display providing a more ergonomically friendly user interface and a patient cart with enhanced instrument dexterity. Overall, the surgical system is designed to be adapted to the needs of the surgeon, rather than the surgeon having to adapt to the system.

The SPORT Surgical System patient cart is being developed to deliver interactive multi- articulating instruments and a 3D high definition vision system into a patient's abdominal body cavity through a single access port. The design of the patient cart includes an insertion tube of approximately 25 millimeter (mm) diameter. The insertion tube includes a collapsible distal end portion incorporating a 3D high definition camera module that once inserted, is configured to deploy into a working configuration wherein the camera module and multi-articulating instruments can be controlled by a surgeon via the workstation. The reusable multi-articulating, snake-like instruments are designed to couple with sterile detachable single patient use robotic end effectors that would provide first use quality in every case and eliminate the reprocessing of the complete instrument. The use of reusable (for a specific number of uses) robotic instruments and single patient use end effectors is intended to minimize the cost per procedure without compromising surgical performance. The patient cart is also designed to include a mast, a boom and wheels for optimal configurability for a variety of surgical indications and the ability to be maneuvered within the operating room, or redeployed within hospitals and surgical centers, where applicable.

As part of the development of the SPORT Surgical System, the Company plans to develop a robust training curriculum and post-training assessment tools for surgeons and surgical teams. The proposed training curriculum will likely include cognitive pre-training, psychomotor skills training, surgery simulations, live animal and human cadaver lab training, surgical team training, troubleshooting and an overview of safety. Post-training assessment will include validation of the effectiveness of those assessment tools.

The Company continuously evaluates its technologies under development for intellectual property protection through a combination of trade secrets and patent application filings. As of March 31, 2018, the Company had ownership of 23 patents and 48 patent applications. The Company anticipates expanding its patent portfolio by filing patent applications as it progresses in the development of robotic surgical technologies and by licensing suitable technologies.

As part of its development and commercialization efforts, the Company has established certain milestones that it uses to assess its progress towards developing commercially viable robotic surgical technologies. These milestones relate to technology and design advancements as well as to targeted dates for preclinical studies and completion of regulatory submissions. To assess progress, the Company regularly tests and evaluates its technology. If such evaluations indicate technical defects or failure to meet cost or performance goals, the Company's commercialization schedule could be delayed and potential purchasers of its initial commercial systems may decline to purchase them or may choose to purchase alternative technologies.

Among other things, the future success of the Company is substantially dependent on continuing its research and development program, including the ongoing support of any outsourced research and development suppliers.

In addition to being capital intensive, research and development activities relating to the sophisticated technologies that the Company is developing are inherently uncertain as to future success and the achievement of desired results. If delays or problems occur during the Company's ongoing research and development activities, important financial and human resources may need to be diverted toward resolving such delays or problems. Further, there is material risk that the Company's research and development activities may not result in a functional, commercially viable product or one that is approved by regulatory authorities.

The current prototype units incorporate previous design and engineering work completed on the SPORT Surgical System. These units have and will continue to be used for preclinical live animal and human cadaver studies.

The Company achieved a 1 l of its milestones for the year ended 2017 published in the Company's Annual Information Form for the 2016 fiscal year, including the finalization of user requirements for its first-generation robotic surgical system and selection of strategic facilities for preclinical studies in the US and Europe. The first unit was installed at Florida Hospital Nicholson Center in September 2017, followed by the installation of units at Columbia University Medical Center and Institut Hospitalo Universitaire de Strasbourg (IHU) in the fourth quarter of 2017. The Company also successfully completed all planned preclinical studies in 2017.

During the first quarter of 2018, the Company proceeded to complete its stated milestones: 1) the planning of software development and product upgrades including improvements to the workstation, patient cart, instruments, camera, light source and disposable components, and 2) demonstration of the first two modules of its simulation software. The Company announced in February 2018 the successful completion of a single-port prostatectomy procedure using the SPORT Surgical System in a preclinical setting. The Company also announced that in February it was granted Canadian Patent No. CA 2,982,615, titled "End Effector Apparatus for a Surgical Instrument", and in March it was granted U.S. Patent No. 9,925,014, titled "Actuator and Drive for Manipulating a Tool".

### **Discussion of Operations**

The Company incurred a net and comprehensive loss of \$808,699 during the three months ended March 31, 2018, compared with a net and comprehensive loss of \$4,988,274 for the same period in 2017. This decrease in net and comprehensive loss for the period is primarily attributed to the substantial decrease in the fair value of warrant liabilities in 2018 compared to 2017. In addition, foreign exchange gain for the three month period ended March 31, 2018 was \$515,153 compared to \$14,816 in 2017.

During the three month period ended March 31, 2018, corporate efforts were ongoing related to furthering strategic product development and manufacturing relationships, carrying on efforts to secure the Company's intellectual property through the patent and licensing process, and continuing the development of the Company's robotic surgical system.

Research and development expenditures (all of which were expensed in the period) for the three months ended March 31, 2018 and March 31, 2017, respectively, were as follows:

| Research and Development          | Three Months Ended | Three Months Ended |
|-----------------------------------|--------------------|--------------------|
| Expenditures                      | March 31, 2018     | March 31, 2017     |
| Intellectual property development | \$ 5,000           | \$ 5,000           |
| License and royalties             | -                  | 5,000              |
| Product development               | 3,269,074          | 2,936,323          |
| Total                             | \$ 3,274,074       | \$ 2,946,323       |

Research and development expenditures increased in the three months ended March 31, 2018 compared to the same period in 2017. This increase was primarily due to an increase in available funding in 2018 compared to 2017.

Excluding foreign exchange, general and administrative expenses for the three months ended March 31, 2018, were \$1,720,644 compared to \$1,455,316 for the comparable period in 2017. This increase in 2018 over 2017 is attributed primarily to an increase in stock-based compensation, consulting fees and management & administrative salaries as a result of additions to the management team during 2017.

The gain attributed to the change in fair value of warrants for the three months ended March 31, 2018 was \$3,642,574 compared to a loss of \$461,996 for the same period in 2017. The net gain of \$4,104,570, reflects a more significant decrease in the fair value of warrants in 2018 compared to 2017.

The Company realized \$28,292 of interest income in the three months ended March 31, 2018 and \$2,133 for the same period in 2017.

For a discussion with regard to the status of the development of the SPORT Surgical System, please see 'Development Objectives'' below.

## Summary of Quarterly Results

The following is selected financial data for each of the eight most recently completed quarters, derived from the Company's financial statements, calculated in accordance with IFRS.

|                               | Three<br>Months<br>Ended<br>March 31,<br>2018 | Three<br>Months<br>Ended<br>December<br>31, 2017 | Three<br>Months<br>Ended<br>September<br>30, 2017 | Three<br>Months<br>Ended<br>June 30,<br>2017 | Three<br>Months<br>Ended<br>March 31,<br>2017 | Three<br>Months<br>Ended<br>December<br>31, 2016 | Three<br>Months<br>Ended<br>September<br>30, 2016 | Three<br>Months<br>Ended<br>June<br>30, 2016 |
|-------------------------------|-----------------------------------------------|--------------------------------------------------|---------------------------------------------------|----------------------------------------------|-----------------------------------------------|--------------------------------------------------|---------------------------------------------------|----------------------------------------------|
| Net sales                     | -                                             | -                                                | -                                                 | -                                            | -                                             | -                                                | -                                                 | -                                            |
| Net and<br>Comprehensive Loss |                                               |                                                  |                                                   |                                              |                                               |                                                  |                                                   |                                              |
| from operations               | \$ 808,699                                    | \$ 12,829,980                                    | \$ 13,902,817                                     | \$ 1,865,913                                 | \$ 4,988,274                                  | \$ 2,008,365                                     | \$ 1,659,863                                      | \$ 7,934,874                                 |
| Basic and diluted loss        |                                               |                                                  |                                                   |                                              |                                               |                                                  |                                                   |                                              |
| per share                     | \$ 0.00                                       | \$ 0.04                                          | \$ 0.06                                           | \$ 0.01                                      | \$ 0.03                                       | \$ 0.01                                          | \$ 0.01                                           | \$ 0.05                                      |

Significant changes in key quarterly financial data from the three months ended June 30, 2016 to the three months ended March 31, 2018 reflect the ongoing development of the SPORT Surgical System. Items that influence significant variations in quarterly data include the availability of cash, fluctuating expenditures on research and development activities, and the requirement to revalue the Company's warrant liability at fair value on a quarterly basis, with changes in fair value recorded through net and comprehensive loss for the period.

# Liquidity and Capital Resources

The Company currently does not generate any revenue or income (other than interest income on its cash balances) and accordingly, it is (and it will be for the foreseeable future) dependent primarily upon equity financing for any additional funding required for development and operating expenses.

The ability of the Company to arrange such financing in the future will depend in part upon prevailing capital market conditions and the business success of the Company. There can be no assurance that the Company will be successful in its efforts to arrange additional financing on terms satisfactory to the Company. If additional financing is raised by the issuance of shares or convertible securities from treasury, control of the Company may change and shareholders may suffer additional dilution. If adequate funds are not available, or are not available on acceptable terms, the Company may not be able to take advantage of opportunities, or otherwise continue its technology development program at its current pace.

The Company had \$20,470,379 of cash and cash equivalents on hand and accounts payable and accrued liabilities of \$2,914,191 excluding warrant liability, at March 31, 2018, compared to \$26,130,493 and \$2,218,352 respectively, at December 31, 2017. The Company's working capital as at March 31, 2018 was \$22,127,676 excluding warrant liability, compared to \$26,675,319 excluding warrant liabilities, at December 31, 2017.

Below is a table that sets out the various series of Titan warrants that were previously issued, using historic rates. The disclosure of the potential proceeds in the last column of the table below assumes all warrants are exercised on or before the expiry date. However, there is no assurance that any warrants will be exercised prior to their expiry.

| Warrant<br>Series | Issue Date         | Expiry Date        | Number<br>Issued | Number<br>Outstanding | Exercise<br>Price<br>(CDN \$) | Potential<br>Proceeds<br>(CDN \$) |
|-------------------|--------------------|--------------------|------------------|-----------------------|-------------------------------|-----------------------------------|
| TMD.WT.F          | November 16, 2015  | November 16, 2020  | 7,012,195        | 7,012,195             | \$1.60                        | 11,219,512                        |
| TMD.WT.G          | February 12, 2016  | February 12, 2021  | 11,670,818       | 11,600,818            | \$1.00                        | 11,600,818                        |
| TMD.WT.G          | February 23, 2016  | February 12, 2021  | 1,746,789        | 1,746,789             | \$1.00                        | 1,746,789                         |
| TMD.WT.H          | March 31, 2016     | March 31, 2021     | 15,054,940       | 15,054,940            | \$1.20                        | 18,065,928                        |
| TMD.WT.H          | April 14, 2016     | March 31, 2021     | 2,258,241        | 2,258,241             | \$1.20                        | 2,709,889                         |
| TMD.WT.I          | September 20, 2016 | September 20, 2021 | 17,083,333       | 17,083,333            | \$0.75                        | 12,812,500                        |
| TMD.WT.I          | October 27, 2016   | September 20, 2021 | 2,030,000        | 2,030,000             | \$0.75                        | 1,522,500                         |
| NOT LISTED        | March 16, 2017     | March 16, 2019     | 10,733,600       | 4,074,708             | \$0.40                        | 1,629,883                         |
| NOT LISTED        | March 16, 2017     | March 16, 2021     | 10,733,600       | 10,657,600            | \$0.50                        | 5,328,800                         |
| NOT LISTED        | June 29, 2017      | June 29, 2022      | 48,388,637       | 2,274,305             | \$0.20                        | 454,861                           |
| NOT LISTED        | July 21, 2017      | June 29, 2022      | 11,117,000       | 11,117,000            | \$0.20                        | 2,223,400                         |
| NOT LISTED        | August 24, 2017    | August 24, 2022    | 16,892,000       | 16,892,000            | \$0.20                        | 3,378,400                         |
| NOT LISTED        | December 5,2017    | December 5, 2022   | 46,000,000       | 46,000,000            | \$0.60                        | 27,600,000                        |
| NOT LISTED        | April 10, 2018     | April 10, 2023     | 33,799,961       | 33,799,961            | \$0.35                        | 11,829,986                        |
| NOT LISTED        | May 10, 2018       | May 10, 2023       | 5,066,666        | 5,066,666             | \$0.35                        | 1,773,333                         |
| TOTAL             |                    |                    | 239,587,780      | 186,668,556           |                               | 113,896,599                       |

# **Development Objectives**

The Company uses a combination of internal resources and external development firms to execute the research, development and commercialization plan for the Company's robotic surgical system.

The results achieved by surgeons in operating prototypes in animal and cadaver studies during 2017 validated the potential for single incision surgeries to be performed with the SPORT Surgical System. However, the studies also confirmed that improvements to the system would be necessary before proceeding toward regulatory clearance and commercialization. The planning for engineering activities has commenced, but the execution of those activities will increase the cost of product development and extend the timeline to commercialization. The Company anticipates that 2018 will be a year of intense product development in preparation for manufacturing, including hardware and software at all levels, involving the workstation, patient cart, camera and light source, instruments, and disposable components that facilitate successful surgery. This work must be completed before design freeze and proceeding with summative evaluation usability tests with the final product and validation studies required for regulatory filings. Based on the scope of product development ahead, the Company expects these tests and studies to take place in 2019, with the system in its final configuration and with training programs in place for new surgeon users.

A complete estimate of the timing and costs for development milestones beyond 2018 is speculative. The Company does however estimate that a minimum of an additional US \$50 million will be required beyond 2018 in order to submit its 510(k) application to the Food and Drug Administration of the United States Department of Health and Human Services (the "FDA"), apply for CE Marking which indicates that a product for sale within the European Economic Area (EEA) has been assessed to conform with health safety and environmental protection requirements, and if successful with those efforts, proceed with early commercialization activities. Given the uncertainty of, among other things, product development timelines, regulatory processes and requirements (such as live animal and human cadaver studies and confirmatory human studies), as well as the availability of required capital to fund development and operating costs, the actual costs and development times may exceed management's current expectations and an accurate estimate of the future costs of the regulatory phases and development milestones beyond 2018 is not possible at this time.

The Company's current plan is to raise sufficient financing and continue the development and commercialization of the SPORT Surgical System at estimated incremental costs, and according to the timeline, as set forth in the table below.

#### **Current Development Plan**

The Company anticipates development costs through to the first quarter of 2019 to be as set out in the table below (the "Current Development Plan").

The Current Development Plan set forth below differs from the development plan set forth in the Company's short form prospectus dated November 30, 2017 (the "November Prospectus"). After the date of the November Prospectus, the Company modified its development plan in response to the results of preclinical testing and guidance received from the FDA.

| Milestone Number | Development Milestones                                                                                                                                                                                                                                                    | Estimated Cost<br>(in US<br>million \$) | Schedule for<br>Milestone<br>Completion | Comments    |
|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|-----------------------------------------|-------------|
| Milestone 1      | Based on preclinical study results, plan software<br>development and product upgrades including<br>improvements to workstation, patient cart,<br>instruments, camera, light source and disposable<br>components                                                           | 5.4 (2)                                 | Q1 2018                                 | Completed   |
|                  | Demonstrate first two modules of simulation software                                                                                                                                                                                                                      |                                         |                                         |             |
| Milestone 2      | Prototype, test and procure surgeon feedback on revised workstation controls                                                                                                                                                                                              | 9.1 (3)                                 | Q2 2018                                 | In Progress |
|                  | Complete software and hardware change<br>requirements and finalize computer and software<br>architecture for production systems                                                                                                                                           |                                         |                                         |             |
|                  | Complete revisions to instrument and lens wash system and demonstrate performance                                                                                                                                                                                         |                                         |                                         |             |
| Milestone 3      | Complete Camera Insertion Tube (CIT)<br>engineering confidence build based on improved<br>design                                                                                                                                                                          | 10.7 (4)                                | Q3 2018                                 |             |
|                  | Complete design of SPORT surgeon workstation<br>and patient cart for engineering confidence build                                                                                                                                                                         |                                         |                                         |             |
|                  | Complete and demonstrate full suite of simulation software for beta test                                                                                                                                                                                                  |                                         |                                         |             |
| Milestone 4      | Complete SPORT capital equipment engineering confidence build based on improved design                                                                                                                                                                                    | 10.6 (5)                                | Q4 2018                                 |             |
| Milestone 5      | Document results of confidence build unit testing,<br>implement design improvements and schedule<br>preliminary audit of quality system by European<br>Notified Body                                                                                                      | 12.7)                                   | Q1 2019                                 |             |
| Milestone 6      | Submit draft protocols to FDA in Q- submission(s) for comment                                                                                                                                                                                                             | TBD <sup>(1)</sup>                      | Q2 2019                                 |             |
|                  | Initiate SPORT Surgical System Design Freeze                                                                                                                                                                                                                              | TBD <sup>(1)</sup>                      | H2 2019                                 |             |
|                  | Verify production system operation with clinical<br>experts under rigorous formal (summative) human<br>factors evaluation under simulated robotic<br>manipulation exercises and through exercises of<br>the completed surgeon simulation software and<br>training program |                                         |                                         |             |
|                  | Complete and document preclinical live animal<br>(swine), cadaver surgery and human confirmatory<br>studies according to final protocols for FDA<br>submittal                                                                                                             |                                         |                                         |             |
|                  | Obtain 13485 Certification                                                                                                                                                                                                                                                |                                         |                                         |             |
|                  | Submit technical file to European Notified Body for review for CE Mark                                                                                                                                                                                                    |                                         |                                         |             |
|                  | Submit 510(k) application to FDA                                                                                                                                                                                                                                          |                                         |                                         |             |
|                  | TOTAL                                                                                                                                                                                                                                                                     | TBD(1)                                  |                                         |             |

Notes:

(1) A specific cost for individual milestone completion cannot be estimated at this time.

(2)

(3) (4)

(5)

A specific cost for individual milestone completion cannot be estimated at this time. Includes research and development costs estimated at approximately US \$4.3 million, and general and administrative costs estimated at approximately US \$1.1 million. Includes research and development costs estimated at approximately US \$7.3 million, and general and administrative costs estimated at approximately US \$1.8 million. Includes research and development costs estimated at approximately US \$8.5 million, and general and administrative costs estimated at approximately US \$2.2 million. Includes research and development costs estimated at approximately US \$8.4 million, and general and administrative costs estimated at approximately US \$2.2 million. Includes research and development costs estimated at approximately US \$8.4 million, and general and administrative costs estimated at approximately US \$2.2 million. Includes research and development costs estimated at approximately US \$1.6 million, and general and administrative costs estimated at approximately US \$1.1 million. (6) million.

The table set forth below describes the intended use of net proceeds and the actual use of net proceeds in respect of the funds raised pursuant to the November Prospectus (the "November Proceeds"):

| Milestone as stated in<br>the November<br>Prospectus | Intended Use of Net Proceeds as stated in<br>the November Prospectus                                                                                                                                                                                  | Actual Use of Net Proceeds and Revised<br>Intended Use of November Proceeds                                                                                                                                                                                            |
|------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Trospectus                                           | (US\$)                                                                                                                                                                                                                                                | (US\$)                                                                                                                                                                                                                                                                 |
|                                                      | (unaudited)                                                                                                                                                                                                                                           | (unaudited) <sup>1</sup>                                                                                                                                                                                                                                               |
| Milestone Q4 2017                                    | Verify system performance in preclinical (live animal labs<br>swine), while establishing clear regulatory pathways for US and<br>Europe.                                                                                                              |                                                                                                                                                                                                                                                                        |
|                                                      | <ul> <li>Complete and report on preclinical live animal (swine<br/>studies at strategic facilities in US and Europe.</li> </ul>                                                                                                                       | Actual Use of November Proceeds:                                                                                                                                                                                                                                       |
|                                                      | <ul> <li>Confirm FDA and CE Mark pathways in coordination<br/>with regulatory authorities.</li> </ul>                                                                                                                                                 | \$1,900,000<br>The balance of \$4.0 million was allocated to the<br>commencement of Milestone 1 in the first quarter of<br>2018.                                                                                                                                       |
|                                                      | Estimated Cost: \$5,900,000.                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                        |
| Milestone Q1 2018                                    | Complete software development, system design and update to Design History File for regulatory filing Applications.                                                                                                                                    | Revised.<br>Milestone Q1 2018 is revised as Milestone 1:                                                                                                                                                                                                               |
|                                                      | Estimated Cost: \$10,000,000.                                                                                                                                                                                                                         | Based on preclinical study results, plan software<br>development and product upgrades including<br>improvements to workstation, patient cart, instruments,<br>camera, light source and disposable components.<br>Demonstrate first two modules of simulation software. |
|                                                      |                                                                                                                                                                                                                                                       | Actual and Revised Intended Use of November<br>Proceeds:                                                                                                                                                                                                               |
|                                                      |                                                                                                                                                                                                                                                       | \$7,000,000 (actual: to February 28, 2018)                                                                                                                                                                                                                             |
|                                                      |                                                                                                                                                                                                                                                       | \$2,700,000 (estimated: for March 2018)                                                                                                                                                                                                                                |
|                                                      |                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                        |
| Milestone Q2 2018                                    | Verify production system operation with clinical experts under<br>rigorous formal (summative) human factors evaluation under<br>simulated robotic manipulation exercises, and exercise<br>completed surgeon simulation software and training program. |                                                                                                                                                                                                                                                                        |
|                                                      | Estimated Cost: \$9,500,000.                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                        |

| Milestone as stated in<br>the November | Intended Use of Net Proceeds as stated in<br>the November Prospectus | Actual Use of Net Proceeds and Revised<br>Intended Use of November Proceeds |
|----------------------------------------|----------------------------------------------------------------------|-----------------------------------------------------------------------------|
| Prospectus                             | (US\$)                                                               | (US\$)                                                                      |
|                                        |                                                                      |                                                                             |
| -                                      | (unaudited)                                                          | (unaudited) <sup>1</sup>                                                    |
|                                        |                                                                      | Complete software and hardware change requirements                          |
|                                        |                                                                      | and finalize computer and software architecture for                         |
|                                        |                                                                      | production systems.                                                         |
|                                        |                                                                      | Complete revisions to instrument and lens wash system                       |
|                                        |                                                                      | and demonstrate performance.                                                |
|                                        |                                                                      | Revised Intended Use of November Proceeds:                                  |
|                                        |                                                                      |                                                                             |
|                                        |                                                                      | \$4,600,000 (estimated: to June 30, 2018)                                   |

Note:

### (1) All figures in the above table include general and administrative expenses for the period noted.

Upon completion of the development of the SPORT Surgical System and following receipt of all applicable regulatory clearances in the United States and Europe, the Company intends to utilize a direct sales force and/or distribution partner(s) to initiate marketing of the SPORT Surgical System to hospitals.

Due to the nature of technology research and development, there is no assurance that these objectives will be achieved, and there can be no assurance with respect to the time or resources that may be required. The Company expects that additional specific milestones could be identified as the development of its SPORT Surgical System progresses, or existing milestones, budgets and the schedule for completion of each milestone may change depending on a number of factors including the results of the Company's development program, clarification of or changes to regulatory requirements, the availability of financing and the ability of development firms engaged by the Company to complete work assigned to them. The total costs to complete the development of the Company's SPORT Surgical System as referenced above are only an estimate based on current information available to the Company and cannot yet be determined with a high degree of certainty, and the costs may be substantially higher than estimated. Please see *"Forward-Looking Statements"*.

Please also refer to the risk factors set forth starting on page 16 of the Company's Annual Information Form for the 2017 fiscal year, available on SEDAR at www.sedar.com.

# Financings

# Offerings to Date During Q2 2018

On April 10, 2018 Titan completed an offering of securities made pursuant to an agency agreement dated April 3, 2018 between the Company and Bloom Burton Securities Inc. (the "Agent"). The Company sold 33,799,961 Units under the Offering at a price of CDN \$0.30 per Unit for gross proceeds of approximately \$8,035,941. Each Unit consisted of one Common Share of the Company and one common Share purchase warrant, each warrant entitles the holder thereof to acquire one Common Share of the Company at an exercise price of CDN \$0.35 and expiring April 10, 2023. The warrants were valued at \$4,553,700 based on the value determined by the Black-Scholes model and the balance of \$3,482,241 was allocated to common shares.

On May 10, 2018 Titan announced the completion of the over-allotment option granted to Bloom Burton Securities Inc. as agent for its offering at a price of CDN \$0.30 per unit completed on April 10, 2018 was exercised and the Company sold an additional 5,066,666 Units at the offering price for additional gross proceeds of \$1,189,856.

# Offerings During Q4 2017

On December 5, 2017 Titan completed an offering of units (the "December Offering") made pursuant to an agency agreement dated November 30, 2017 between the Company and Bloom Burton Securities Inc. ("Bloom Burton"). The Company sold 46,000,000 units under the December Offering at a price of CDN \$0.50 per unit for gross proceeds of approximately \$18,137,800 (\$16,517,424 net of closing costs including cash commission of \$1,246,185 paid in accordance with the terms of the agency agreement). Each unit consisted of one Common Share and one Common Share purchase warrant, each warrant entitling the holder thereof to acquire one additional Common Share at an exercise price of CDN \$0.60 and expiring December 5, 2022. The warrants were valued at \$5,223,686 based on the value determined by using the Black-Scholes model and the balance of \$12,914,114 was allocated to common shares.

On October 20, 2017 and October 30, 2017, the Company completed a non-brokered private placement offering of 13,385,900 Common Shares, for aggregate gross proceeds of US \$2,677,326 (CDN\$3,343,416), to subscribers in Canada, the United States and Europe.

## Offerings During Q2 and Q3 2017

On June 29, 2017, the Company completed an offering of securities (the "June Offering") pursuant to an agency agreement (the "June Agency Agreement") dated June 26, 2017 between the Company and Bloom Burton. At the first closing of the June Offering on June 29, 2017, the Company sold 48,388,637 units at a price of CDN \$0.15 per unit for gross proceeds of approximately \$5,576,357 (\$4,838,002 net of closing costs including cash commission of \$382,689 paid in accordance with the terms of the June Agency Agreement). Each unit consisted of one common share of the Company and one common share purchase warrant, each warrant entitles the holder thereof to acquire one common share of the Company at an exercise price of CDN \$0.20 and expires June 29, 2022. The warrants were valued at \$2,788,274 based on the value determined by the Black-Scholes model and the balance of \$2,788,083 was allocated to common shares. In addition to the cash commission paid to Bloom Burton and selling group members, which entitle the holder to purchase 3,285,986 common shares at a price of CDN \$0.15 per share prior to expiry on June 29, 2019.

On July 21, 2017 Titan completed the second closing of the June Offering pursuant to which the Company sold an additional 11,117,000 units at a price of CDN \$0.15 per unit for gross proceeds of approximately \$1,328,871 (\$1,200,788 net of closing costs including cash commission of \$93,021 paid in accordance with the terms of the June Agency Agreement). Each unit consisted of one common share of the Company and one common share purchase warrant, each warrant entitles the holder thereof to acquire one common share of the Company at an exercise price of CDN \$0.20 and expiring June 29, 2022. The warrants were valued at \$575,844 based on the value determined by using the Black-Scholes model and the balance of \$753,027 was allocated to common shares. Pursuant to the agency agreement, in addition to the cash commission paid to Bloom Burton and the selling group members, broker warrants were issued to Bloom Burton and the selling group members, which entitle the holder to purchase 778,190 common shares at a price of CDN \$0.15 per share prior to expiry on June 29, 2019.

# Offerings During Q1 2017

On March 16, 2017, Titan completed an offering (the "March Offering") of securities made pursuant to an agency agreement dated March 10, 2017 (the "March Agency Agreement") between the Company and Bloom Burton. The Company sold 21,467,200 units under the Offering at a price of CDN\$0.35 per unit for gross proceeds of approximately \$5,642,537 (\$5,039,817 net of closing cost including cash commission of \$394,316 paid in accordance with the terms of the March Agency Agreement). Each unit consisted of one common share of the Company and (i) one-half of one common share purchase warrant, each whole warrant entitling the holder thereof to acquire one common share of the Company at an exercise price of CDN \$0.40 and expiring March 16, 2019, and (ii) one-half of one common share purchase warrant, each whole warrant entitling the holder thereof to acquire one common share of the Company at an exercise price of CDN \$0.50 and expiring March 16, 2021. The warrants were valued at \$1,297,810 based on the value determined by using the Black-Scholes model and the balance of \$4,344,727 was allocated to common shares.

Pursuant to the March Agency Agreement, in addition to the cash commission paid to Bloom Burton, broker warrants were issued to Bloom Burton which entitle the holder to purchase 1,500,155 common shares at a price of CDN \$0.35 per share prior to expiry on March 16, 2019.

# Private Placements - Longtai Medical Inc.

On August 24, 2017, Titan completed a subscription agreement with Longtai for the equity conversion of Longtai's \$2.0 million distribution deposit. Under the terms of the subscription agreement dated July 31, 2017, Titan issued to Longtai 16,892,000 Units at an assigned issue price of CDN \$0.15 per Unit. Each Unit consists of one common share and one common share purchase warrant, with each warrant exercisable for one Common Share at an exercise price of CDN \$0.20 per warrant prior to expiry on August 24, 2022. The warrants were valued at \$822,372 based on the value of comparable warrants at the time. The common shares were valued at \$1,887,411 based on the market value on August 24, 2017 of CDN \$0.14. In addition, because the warrant and the common share were valued at fair value in accordance with International Financial Reporting Interpretations Committee Interpretation #19-Extinguishing Financial Liabilities ("IFRIC 19"), a loss of \$709,782 was incurred on extinguishment which is included in the gain (Loss) on change in value of warrant liability in the unaudited condensed statement of net and comprehensive loss.

#### **Off-Balance Sheet Arrangements**

Other than for leased premises occupied by the Company, the Company does not utilize off balance sheet arrangements.

#### **Outstanding Share Data**

The following table summarizes the outstanding share capital as of the date of this MD&A:

| Type of Securities             | Number of common shares issued or issuable<br>upon conversion |
|--------------------------------|---------------------------------------------------------------|
| Common shares                  | 419,888,311                                                   |
| Stock options(1)               | 25,917,130                                                    |
| Warrants                       | 186,668,556                                                   |
| Broker warrants <sup>(2)</sup> | 8,765,978                                                     |

Notes:

- (1) The Company has outstanding options enabling certain employees, directors, officers and consultants to purchase common shares. Please refer to note 4(b) of the Interim Financial Statements for terms of such options.
- (2) Pursuant to the agency agreement in respect of the September 2016 offering, in addition to the cash commission paid to the agents, 1,307,594 broker warrants were issued to the agents. Each broker warrant entitles the holder thereof to acquire one common share of the Company at the price of CDN \$0.60 for a period of 24 months following the closing date.

Pursuant to the agency agreement in respect of the March 2017 offering, in addition to the cash commission paid to the agents, 1,500,155 broker warrants were issued to the agents. Each broker warrant entitles the holder thereof to acquire one common share of the Company at the price of CDN \$0.35 for a period of 24 months following the closing date.

Pursuant to the agency agreement in respect of the June 2017 offering, in addition to the cash commission paid to the agents, 4,064,176 broker warrants were issued to the agents. Each broker warrant entitles the holder thereof to acquire one common share of the Company at the price of CDN \$0.15 for a period of 24 months following the closing date.

Pursuant to the agency agreement in respect of the December 2017 offering, in addition to the cash commission paid to the agents, 3,160,500 broker warrants were issued to the agents. Each broker warrant entitles the holder thereof to acquire one common share of the Company at the price of CDN \$0.50 for a period of 24 months following the closing date.

Pursuant to the agency agreement in respect of the April 2018 offering, in addition to the cash commission paid to the agents, 2,693,830 broker warrants were issued to the agents. Each broker warrant entitles the holder thereof to acquire one common share of the Company at the price of CDN \$0.30 for a period of 24 months following the closing date.

A total of 12,726,255 broker warrants were issued in connection with the September 2016, March 2017, June 2017, December 2017 and April 2018 offerings. As of the date hereof, 8,765,978 broker warrants remain outstanding.

# Accounting Policies

The accounting policies set out in the notes to the unaudited condensed interim financial statements have been applied in preparing the unaudited condensed interim financial statements for the three months ended March 31, 2018, and the comparative information presented in the unaudited condensed interim financial statements for the three months ended March 31, 2017.

The preparation of financial statements in conformity with IAS 34, Interim Financial Reporting requires management to make estimates and assumptions that affect the reported amount of assets and liabilities and disclosure of provisions at the date of the condensed interim financial statements and the reported amount of expenses during the period. Financial statement items subject to significant judgement include, the measurement of stock based compensation and the fair value estimate of the initial measurement of new warrant liabilities and remeasurement of unlisted warrant liabilities. While management believes that the estimates and assumptions are reasonable, actual results may differ.

#### (a) Stock Options

The Black-Scholes model used by the Company to determine fair values of stock options and warrants was developed for use in estimating the fair value of the stock options and warrants. This model requires the input of highly subjective assumptions including future stock price volatility and expected time until exercise. Changes in the subjective input assumptions can materially affect the fair value estimate.

#### (b) Warrant Liability

In accordance with IAS 32, because the exercise prices of new warrants are not fixed, they are denominated in a currency (Canadian dollar) other than the Company's functional currency (U.S. dollar). Accordingly, the warrants are accounted for as a derivative financial liability. The warrant liability is initially measured at fair value and subsequent changes in fair value are recorded through Net and Comprehensive Loss for the period. The accounting guidance for fair value measurements prioritizes the inputs used in measuring fair value into the following hierarchy:

Level 1 - Quoted prices (unadjusted) in active markets for identical assets or liabilities;

Level 2 – Inputs other than quoted prices included within Level 1 that are directly or indirectly observable:

Level 3 – Unobservable inputs in which little or no market activity exists, therefore requiring an entity to develop its own assumptions about the assumptions that market participants would use in pricing.

The fair value of our Warrant liability is initially based on Level 2 (significant observable inputs) and at March 31, 2018 is based on Level 1, quoted prices (unadjusted) in an active market, for our listed warrants and level 2 for our unlisted warrants.

#### **Related Party Transactions**

During the three months ended March 31, 2018, transactions between the Company and directors, officers and other related parties were related to compensation matters in the normal course of operations and are measured at the exchange amount, which is the amount of consideration established and agreed to by the related parties.

#### Financial Instruments

The Company's financial instruments consist of cash and cash equivalents, amounts receivable, accounts payable and accrued liabilities, warrant liability, and other liabilities and charges. The fair value of these financial instruments approximates their carrying values, unless otherwise noted, due to the short term maturities of these instruments or the discount rate applied.

#### Outlook

During the third and fourth quarters of 2017, experienced robotic surgeons performed the first single-port procedures at three Centers of Excellence in the US and Europe using the SPORT Surgical System. These studies validated prototype performance in preclinical settings. During the studies, essential areas for improvement of the surgical system were identified. These include enhancements to the camera and light source, hand controls, instruments, the mechanisms of the patient cart and software throughout the system to ensure safe and reliable system operation. The final design is intended to address performance and usability requirements of prospective surgeon customers, as well as the needs of operating room support personnel and hospital administrators.

In 2018, management will continue to focus on product development for manufacturing, including hardware and software at all levels, involving the workstation, patient cart, instruments, camera and light source, and disposable components that facilitate successful surgery.

As improvements are made to the system, advanced prototypes will be upgraded and deployed at the Centers of Excellence for further preclinical evaluation in live animal and cadaver studies to ensure that the improvements are effective. This work must be completed before freezing the design and proceeding with summative evaluation usability tests with the final product, and validation studies required for regulatory filings. Based on the scope of product development ahead, those tests and studies are expected to take place in 2019.

Over the next twelve months, the Company plans to raise additional capital to finance the development and commercialization of the SPORT Surgical System. Management will continue to assess the reasonableness of development milestones, as well as timelines and related cost estimates, as financing is secured.

The Company's immediate plans also include identifying and engaging technical experts and subcontractors with experience in key technical areas to provide an accelerated pathway to subsystems development with current technology. Further, the Company plans to continue to protect its intellectual property by securing additional patents. The pace at which the Company can carry out these activities will be substantially dependent on its ability to raise the necessary capital on a timely basis.

Additional information relating to the Company, including Titan's Annual Information Form for the 2017 fiscal year, is available on SEDAR at www.sedar.com.

# FORM 52-109F2 CERTIFICATION OF INTERIM FILINGS FULL CERTIFICATE

I, David McNally Chief Executive Officer of Titan Medical Inc., certify the following:

- Review: I have reviewed the interim financial report and interim MD&A (together, the "interim filings") of Titan Medical Inc. (the "issuer") for the interim period ended March 31, 2018.
- 2. No misrepresentations: Based on my knowledge, having exercised reasonable diligence, the interim filings do not contain any untrue statement of a material fact or omit to state a material fact required to be stated or that is necessary to make a statement not misleading in light of the circumstances under which it was made, with respect to the period covered by the interim filings.
- 3. Fair presentation: Based on my knowledge, having exercised reasonable diligence, the interim financial report together with the other financial information included in the interim filings fairly present in all material respects the financial condition, financial performance and cash flows of the issuer, as of the date of and for the periods presented in the interim filings.
- 4. Responsibility: The issuer's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (DC&P) and internal control over financial reporting (ICFR), as those terms are defined in National Instrument 52-109 Certification of Disclosure in Issuers' Annual and Interim Filings, for the issuer.
- Design: Subject to the limitations, if any, described in paragraphs 5.2 and 5.3, the issuer's other certifying officer and 1 have, as at the end of the period covered by the interim filings
  - designed DC&P, or caused it to be designed under our supervision, to provide reasonable assurance that
    - material information relating to the issuer is made known to us by others, particularly during the period in which the interim filings are being prepared; and
    - (ii) information required to be disclosed by the issuer in its annual filings, interim filings or other reports filed or submitted by it under securities legislation is recorded, processed, summarized and reported within the time periods specified in securities legislation; and
  - (b) designed ICFR, or caused it to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with the issuer's GAAP.
- 5.1 Control framework: The control framework the issuer's other certifying officer and I used to design the issuer's ICFR is Integrated Framework (COSO).

- 5.2 ICFR material weakness relating to design: N/A
- 5.3 Limitation on scope of design: N/A
- Reporting changes in ICFR: The issuer has disclosed in its interim MD&A any change in the issuer's ICFR that occurred during the period beginning on January 1, 2018 and ended on March 31, 2018 that has materially affected, or is reasonably likely to materially affect, the issuer's ICFR.

Date: May 11, 2018

1 David McNally

Chief Executive Officer Titan Medical Inc.

# FORM 52-109F2 CERTIFICATION OF INTERIM FILINGS FULL CERTIFICATE

I, Stephen Randall, Chief Financial Officer of Titan Medical Inc., certify the following:

- Review: I have reviewed the interim financial report and interim MD&A (together, the "interim filings") of Titan Medical Inc. (the "issuer") for the interim period ended March 31, 2018.
- 2. No misrepresentations: Based on my knowledge, having exercised reasonable diligence, the interim filings do not contain any untrue statement of a material fact or omit to state a material fact required to be stated or that is necessary to make a statement not misleading in light of the circumstances under which it was made, with respect to the period covered by the interim filings.
- 3. Fair presentation: Based on my knowledge, having exercised reasonable diligence, the interim financial report together with the other financial information included in the interim filings fairly present in all material respects the financial condition, financial performance and cash flows of the issuer, as of the date of and for the periods presented in the interim filings.
- 4. Responsibility: The issuer's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (DC&P) and internal control over financial reporting (ICFR), as those terms are defined in National Instrument 52-109 Certification of Disclosure in Issuers' Annual and Interim Filings, for the issuer.
- Design: Subject to the limitations, if any, described in paragraphs 5.2 and 5.3, the issuer's other certifying officer and I have, as at the end of the period covered by the interim filings
  - designed DC&P, or caused it to be designed under our supervision, to provide reasonable assurance that
    - material information relating to the issuer is made known to us by others, particularly during the period in which the interim filings are being prepared; and
    - (ii) information required to be disclosed by the issuer in its annual filings, interim filings or other reports filed or submitted by it under securities legislation is recorded, processed, summarized and reported within the time periods specified in securities legislation; and
  - (b) designed ICFR, or caused it to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with the issuer's GAAP.
- 5.1 Control framework: The control framework the issuer's other certifying officer and I used to design the issuer's ICFR is Integrated Framework (COSO).

- 5.2 ICFR material weakness relating to design: N/A
- 5.3 Limitation on scope of design: N/A
- 6. **Reporting changes in ICFR:** The issuer has disclosed in its interim MD&A any change in the issuer's ICFR that occurred during the period beginning on January 1, 2018 and ended on March 31, 2018 that has materially affected, or is reasonably likely to materially affect, the issuer's ICFR.

Date: May 11, 2018

Candall uppen, Stephen D. Randall

Chief Financial Officer Titan Medical Inc.

# TITAN MEDICAL INC.

### 170 University Avenue, Suite 1000 Toronto, Ontario, Canada M5H 3B3

# NOTICE OF ANNUAL AND SPECIAL MEETING OF SHAREHOLDERS

NOTICE IS HEREBY GIVEN that the Annual and Special Meeting (the "Meeting") of shareholders of Titan Medical Inc. (the "Corporation") will be held at the offices of Borden Ladner Gervais LLP, Bay Adelaide Centre, East Tower, 22 Adelaide Street West, 34 <sup>th</sup> Floor, Montreal/Ottawa Room, Toronto, Ontario M5H 4E3, on Thursday, June 14, 2018 at 1:30 p.m., Toronto time, for the following purposes:

- 1. to receive and consider the financial statements of the Corporation for the fiscal year ended December 31, 2017, together with the report of the auditors thereon;
- 2. to elect directors of the Corporation for the ensuing year;
- 3. to reappoint as auditors BDO Canada LLP, the incumbent auditors of the Corporation, and authorize the directors to fix the remuneration of the auditors;
- 4. to confirm and approve the Corporation's stock option plan;
- 5. to consider, and if deemed advisable, approve the consolidation of the outstanding common shares of the Corporation; and
- 6. to transact such other business as may properly come before the Meeting or any adjournments thereof.

A copy of the information circular and form of proxy accompany this Notice.

Only shareholders of record as of May 10, 2018, the record date (the 'Record Date"), are entitled to receive notice of the Meeting.

The directors have fixed 5:00 p.m. on June 12, 2018 or the second last business day before any adjournment of the Meeting as the time before which proxies to be used at the Meeting (or any adjournment thereof) must be deposited with the Corporation or with Computershare Trust Company of Canada.

DATED the 11<sup>th</sup> day of May, 2018.

# By Order of the Board

*(signed) "David McNally"* Chief Executive Officer Titan Medical Inc.



170 University Avenue • Suite 1000 Toronto, Ontario, Canada M5H 3B3 • Tel: 416.548.7522 info@titanmedicalinc.com • www.titanmedicalic.com

### NOTICE OF ANNUAL AND SPECIAL MEETING OF SHAREHOLDERS

### TO BE HELD ON JUNE 14, 2018

AND

#### MANAGEMENT INFORMATION CIRCULAR

# DATED MAY 11, 2018

These materials are important and require your immediate attention. They require shareholders of Titan Medical Inc. (the "Corporation") to make important decisions. If you are in doubt as to how to make such decisions, please contact your financial, legal or other professional advisors. If you have any questions or require more information with regard to voting your shares of the Corporation, please contact Computershare Trust Company of Canada at (416) 263-9200.

# TITAN MEDICAL INC.

#### 170 University Avenue, Suite 1000 Toronto, Ontario, Canada M5H 3B3

## NOTICE OF ANNUAL AND SPECIAL MEETING OF SHAREHOLDERS

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DATED the 11<sup>th</sup> day of May, 2018.

# By Order of the Board

*(signed) "David McNally"* Chief Executive Officer Titan Medical Inc.



170 UNIVERSITY AVENUE, SUITE 1000, TORONTO, ONTARIO, CANADA M5H 3B3

# MANAGEMENT INFORMATION CIRCULAR

Dated May 11, 2018

for the

Annual and Special Meeting of Shareholders

to be held on June 14, 2018

# INFORMATION CIRCULAR

# TABLE OF CONTENTS

| INTRODUCTION                                                         | 1                          |
|----------------------------------------------------------------------|----------------------------|
| FORWARD-LOOKING STATEMENTS                                           | <u>1</u>                   |
| INFORMATION CONTAINED IN THIS CIRCULAR                               | 1                          |
|                                                                      |                            |
| GENERAL PROXY MATTERS                                                | <u>2</u>                   |
| APPOINTMENT, TIME FOR DEPOSIT AND REVOCABILITY OF PROXY              | <u>2</u>                   |
| VOTING BY PROXY                                                      | <u>2</u>                   |
| MAIL                                                                 | <u>2</u>                   |
| FAX                                                                  | <u>3</u>                   |
| INTERNET                                                             | <u>3</u>                   |
| APPOINTING A PROXYHOLDER                                             | <u>3</u>                   |
| REVOCATION OF VOTING INSTRUCTIONS OR PROXIES                         | 3                          |
| VOTING OF PROXIES                                                    | <u>4</u>                   |
| VOTING SHARES AND PRINCIPAL HOLDERS THEREOF                          | <u>4</u>                   |
|                                                                      |                            |
| BUSINESS OF THE MEETING                                              | <u>5</u>                   |
| FINANCIAL STATEMENTS                                                 | <u>5</u>                   |
| ELECTION OF DIRECTORS                                                | <u>5</u>                   |
| MAJORITY VOTING POLICY                                               | <u>5</u>                   |
| NOMINEES FOR ELECTION AS DIRECTORS                                   | <u>5</u>                   |
| STATEMENT OF EXECUTIVE COMPENSATION                                  | <u>8</u>                   |
| CORPORATE GOVERNANCE PRACTICES                                       | 15<br>19<br>21<br>25<br>27 |
| APPOINTMENT AND REMUNERATION OF AUDITORS                             | <u>19</u>                  |
| SHARE CONSOLIDATION                                                  | <u>21</u>                  |
| RISK FACTORS ASSOCIATED WITH THE SHARE CONSOLIDATION                 | <u>25</u>                  |
| OTHER ITEMS OF BUSINESS                                              | 27                         |
|                                                                      |                            |
| INTEREST OF CERTAIN PERSONS OR COMPANIES IN MATTERS TO BE ACTED UPON | <u>27</u>                  |
|                                                                      |                            |
| ADDITIONAL INFORMATION                                               | <u>27</u>                  |
|                                                                      |                            |
| DIRECTORS' APPROVAL                                                  | <u>27</u>                  |
| SCHEDULE "A" – Board of Directors Mandate                            |                            |
|                                                                      |                            |

SCHEDULE "B" - Stock Option Plan

# TITAN MEDICAL INC. INFORMATION CIRCULAR May 11, 2018

### INTRODUCTION

This Information Circular (the "Circular") is furnished in connection with the solicitation by the management of Titan Medical Inc. (the "Corporation") of proxies to be used at the annual and special meeting (the "Meeting") of shareholders of the Corporation to be held at the offices of Borden Ladner Gervais LLP, Bay Adelaide Centre, East Tower, 22 Adelaide Street West, 34 <sup>th</sup> Floor, Montreal/Ottawa Room, Toronto, Ontario M5H 4E3 at 1:30 p.m. (Toronto time) on Thursday, June 14, 2018 at the place and for the purposes set forth in the accompanying Notice of Meeting. Except where otherwise indicated, this Circular contains information as of the close of business on May 11, 2018. It is expected that the solicitation will be primarily by mail but proxies may also be solicited personally by management of the Corporation at nominal cost. The cost of any such solicitation by management will be borne by the Corporation.

The Corporation may pay the reasonable costs incurred by persons who are the registered but not beneficial owners of voting shares of the Corporation (such as brokers, dealers, other registrants under applicable securities laws, nominees and/or custodians) in sending or delivering copies of this Circular and form of proxy to the beneficial owners of such shares. The Corporation will provide, without cost to such persons, upon request to the Secretary of the Corporation, additional copies of the foregoing documents required for this purpose.

### FORWARD-LOOKING STATEMENTS

This Circular contains certain forward-looking statements with respect to the Corporation based on assumptions that management of the Corporation considered reasonable at the time they were prepared. These forward-looking statements, by their nature, necessarily involve risks and uncertainties that could cause actual results to differ materially from those contemplated by the forward-looking statements.

## INFORMATION CONTAINED IN THIS CIRCULAR

No person has been authorized to give information or to make any representations in connection with the matters to be considered at the Meeting other than those contained in this Circular and, if given or made, any such information or representations should not be relied upon in making a decision as to how to vote on the resolutions or be considered to have been authorized by the Corporation or the Board of Directors (the "Board" or "Board of Directors") of the Corporation.

This Circular does not constitute an offer to buy, or a solicitation of an offer to sell, any securities. This Circular also does not constitute the solicitation of a proxy by any person in any jurisdiction in which such a solicitation is not authorized or in which the person making such a solicitation is not qualified to do so or to any person to whom it is unlawful to make such a solicitation.

Shareholders should not construe the contents of this Circular as legal, tax or financial advice and should consult with their own professional advisors as to the relevant legal, tax, financial or other matters in connection with the Meeting.

## GENERAL PROXY MATTERS

## APPOINTMENT, TIME FOR DEPOSIT AND REVOCABILITY OF PROXY

Shareholders of the Corporation are either registered or non-registered. Registered shareholders typically hold shares of the Corporation in their own names because they have requested that their shares be registered in their names on the records of the Corporation rather than holding such shares through an intermediary (intermediaries include, among others, banks, trust companies, securities dealers or brokers and trustees or administrators of self-administered RRSP's, RRIF's, RESP's and similar plans). Most shareholders are non-registered because their shares are registered in the name of either (a) an intermediary with whom the non-registered shareholder deals in respect of their shares, or (b) a clearing agency (such as The Canadian Depository for Securities Limited) of which the intermediary is a participant.

Only registered shareholders or duly appointed proxyholders will be permitted to vote at the Meeting. Non-registered shareholders may vote through a proxy or attend the Meeting to vote their own shares only if, before the Meeting, they communicate instructions to the intermediary or clearing agency that holds their shares. Instructions for voting through a proxy, appointing a proxyholder and attending the Meeting to vote are set out in this Circular.

A shareholder may receive multiple packages of Meeting materials if the shareholder holds shares of the Corporation through more than one intermediary or if the shareholder is both a registered shareholder and a non-registered shareholder for different shareholdings. Any such shareholder should repeat the steps to vote through a proxy, appoint a proxyholder or attend the Meeting, if desired, separately for each shareholding to ensure that all the shares from the various shareholders are represented and voted at the meeting.

# VOTING BY PROXY

Shareholders who are unable to be present at the Meeting may vote through the use of proxies. Shareholders should convey their voting instructions using one of the two voting methods available: (1) use of the form of proxy or voting instruction form to be returned by mail, delivery or facsimile, or (2) use of the Internet voting procedure. By conveying voting instructions in one of the two ways, shareholders can participate in the Meeting through the person or persons named on the voting instruction form or form of proxy.

To convey voting instructions through any of the two methods available, a shareholder must locate the voting instruction form or form of proxy, one of which is included with the Circular in the package of Meeting materials sent to all shareholders. The voting instruction form is a white, computer scanable document with red squares marked "X" (the "voting instruction form") and is sent to most non-registered shareholders. The form of proxy is a form headed "Form of Proxy" (the form of proxy") and it is sent to all registered shareholders.

## MAIL

A shareholder who elects to use the paper voting procedure should complete a voting instruction form or a form of proxy. If the form of proxy is already signed, do not sign it again. Complete the remainder of the voting instruction form or form of proxy. Ensure that you date and sign the form at the bottom. Completed voting instruction forms should be returned to the relevant intermediary in the envelope provided and should be received by the cut-off date shown on the voting instruction form. Completed forms of proxy should be returned in the envelope provided to the Corporation's transfer agent and registrar, Computershare Trust Company of Canada ("**Computershare**"), 100 University Avenue, 8<sup>th</sup> Floor, South Tower, Toronto, Ontario, M5J 2Y1 or by hand to: 8th Floor, 100 University Avenue, Toronto, Ontario M5J 2Y1 no later than 5:00 p.m. (Toronto time) on June 12, 2018 (or the second last business day preceding any adjournment of the Meeting).

## FAX

A shareholder who elects to use the facsimile voting procedure should complete a voting instruction form or a form of proxy. If the form of proxy is already signed, do not sign it again. Complete the remainder of the voting instruction form or form of proxy. Ensure that you date and sign the form at the bottom. Completed voting instruction forms should be faxed to the relevant intermediary at the number provided and should be received by the cut-off date shown on the voting instruction form. Completed forms of proxy should be returned by fax to Computershare at 1-866-249-7775 no later than 5:00 p.m. (Toronto time) on June 12, 2018 (or the second last business day preceding any adjournment of the Meeting).

# INTERNET

Shareholders may convey their voting instructions through the Internet. The relevant website address is set out on the voting instruction form and form of proxy. Follow the instructions given through the Internet to cast your vote. When instructed to enter your Web Voting ID Number, refer to your voting instruction form or your form of proxy. Votes conveyed by the Internet must be received no later than the cut-off time given on the voting instruction form or the form of proxy.

#### APPOINTING A PROXYHOLDER

Shareholders unable to attend the Meeting in person may participate and vote at the Meeting through a proxyholder. The persons named on the enclosed form of proxy as proxyholders to represent shareholders at the Meeting, being David McNally and John E. Barker, are directors and/or officers of the Corporation. A shareholder has the right to appoint a person or company instead of those named above to represent such shareholder at the Meeting. A non-registered shareholder who would like to attend the Meeting to vote must arrange with the intermediary to have himself or herself appointed as the proxyholder. To appoint a person or company instead of David McNally or John E. Barker as proxyholder, strike out the names on the voting instruction form or form of proxy and write the name of the person you would like to appoint as your proxyholder in the blank space provided. That person need not be a shareholder of the Corporation.

Non-registered shareholders appointing a proxyholder using a voting instruction form should fill in the rest of the form indicating a vote "for", "against" or "withhold", as the case may be, for each of the proposals listed, sign and date the form and return it to the relevant intermediary or clearing agency in the envelope provided or by facsimile by the cut-off time given on the form. Proxyholders named on a signed form of proxy will be entitled to vote at the Meeting upon presentation of the form of proxy. No person will be entitled to vote at the Meeting by presenting a voting instruction form.

Alternatively, any shareholder may use the Internet to appoint a proxyholder. To use this option, access the website address printed on the voting instruction form of proxy and follow the instructions set out on the website. Refer to the control number or holder account number and proxy access number printed on the voting instruction form or form of proxy when required to enter these numbers.

# **REVOCATION OF VOTING INSTRUCTIONS OR PROXIES**

Voting instructions submitted by mail, facsimile or through the Internet using a voting instruction form will be revoked if the relevant intermediary receives new voting instructions before the close of business on June 12, 2018 (or the second last business day before any adjournment of the Meeting).

Proxies submitted by mail, facsimile or through the Internet using a form of proxy may be revoked by submitting a new proxy to Computershare before 5:00 p.m. (Toronto time) on June 12, 2018 or the second last business day before any adjournment of the Meeting. Alternatively, a shareholder who wishes to revoke a proxy may do so by depositing an instrument in writing to such effect addressed to the attention of the Corporation's Chief Financial Officer and executed by the shareholder or by the shareholder's attorney authorized in writing. Such an instrument must be deposited at the registered office of the Corporation, located at 170 University Avenue, Suite 1000, Toronto, Ontario, M5H 3B3, before the close of business on June 12, 2018, or the second last business day before any adjournment of the Meeting. On the day of the Meeting or any adjournment thereof, a shareholder may revoke a proxy by depositing an instrument in writing to such effect with the chair of the Meeting; however, it will not be effective with respect to any matter on which a vote has already been cast.

In addition, a proxy may be revoked by any other manner permitted by law.

## VOTING OF PROXIES

The persons named in the enclosed form of proxy will vote, or withhold from voting, the shares in respect of which they are appointed in accordance with the direction of the shareholders appointing them. In the absence of such direction, such shares will be voted for the election of directors and for the appointment and remuneration of auditors as stated under the relevant headings in this Circular. The enclosed form of proxy confers discretionary authority upon the persons named therein to exercise their judgement and to vote with respect to amendments or variations to matters identified in the Notice of Meeting and with respect to other matters which may properly come before the Meeting. At the date hereof, the management of the Corporation knows of no such amendments or variations or of any other matters to come before the Meeting other than the matters referred to in the Notice of Meeting.

## VOTING SHARES AND PRINCIPAL HOLDERS THEREOF

On May 10, 2018, the Corporation had outstanding 419,888,311 common shares (**'Common Shares**''), each carrying the right to one vote per share. Shareholders registered on the books of the Corporation (or their respective proxies) at the close of business on May 10, 2018 (the "**Record Date**") are entitled to vote at the Meeting, except to the extent that a registered shareholder transfers any of such shareholder's shares after May 10, 2018, and the transferee of such shares produces properly endorsed share certificates or otherwise establishes that such shareholder owns such shares and demands, not later than 10 days before the Meeting, that such shareholder's name be included in the list of shareholders entitled to vote at the Meeting.

As at May 10, 2018, to the knowledge of the directors and senior officers of the Corporation, no person or company beneficially owns, directly or indirectly, or exercises control or direction over greater than 10% of the Common Shares of the Corporation.

## **BUSINESS OF THE MEETING**

## FINANCIAL STATEMENTS

The directors will place before the Meeting the financial statements for the year ended December 31, 2017 together with the auditors' report thereon. The financial statements will have already been mailed to shareholders that have requested them and are also available on the Canadian System for Electronic Document Analysis and Retrieval ("SEDAR") website at *www.sedar.com* and on the Corporation's website at *www.titanmedicalinc.com*. No vote by shareholders with respect to the financial statements is required or proposed to be taken.

All amounts are in U.S. dollars other than amounts based on share price values which are in Canadian dollars.

## **ELECTION OF DIRECTORS**

The Corporation currently has five (5) directors, each of whom is being nominated for re-election at the Meeting. All directors are elected annually.**Unless such authority is** withheld, the person named in the enclosed form of proxy intends to vote for the election of the nominees whose names are set forth below. Management does not contemplate that any of the nominees will be unable to serve as a director but, if that should occur for any reason prior to the Meeting, the persons named in the enclosed form of proxy reserve the right to vote for another nominee in their discretion. Each director elected will hold office until the next annual meeting or until his office is earlier vacated in accordance with the by-law of the Corporation.

## MAJORITY VOTING POLICY

The Board of Directors has adopted a majority voting policy to the effect that if a director nominee in an uncontested election receives a greater number of votes "withheld" than votes "for", he or she must immediately tender his or her resignation to the Board of Directors. The Corporate Governance and Nominating Committee will consider the director's offer to resign and make a recommendation to the Board of Directors whether to accept it or not. The Board of Directors shall accept the resignation unless there are exceptional circumstances, and the resignation will be effective when accepted by the Board of Directors. The Board of Directors shall make its final determination within 90 days after the date of the shareholder meeting and promptly announce that decision (including, if applicable, the exceptional circumstances for rejecting the resignation pursuant to the majority voting policy will not participate in any meeting of the Board of Directors or the Corporate Governance and Nominating Committee at which the resignation is considered. The majority voting policy does not apply to the election of directors at contested meetings; that is, where the number of directors nominated for election is greater than the number of seats available on the Board of Directors.

# NOMINEES FOR ELECTION AS DIRECTORS

The following table and the notes thereto set out the names of all the persons proposed to be nominated for election as directors, their principal occupation, the date on which each became a director of the Corporation and the number of Common Shares of the Corporation beneficially owned, directly or indirectly, or over which control or direction is exercised by each of them as at May 11, 2018 as well as information concerning committee membership:

| Name and Place of Residence                                                                                                                                                                                                                                               | Principal Occupation                                                                                                                                                            | Director<br>Since | Number of Common Shares<br>Beneficially Owned, or Controlled<br>or Directed, Directly or Indirectly<br>(1) |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|------------------------------------------------------------------------------------------------------------|
| <b>John E. Barker</b> <sup>(2)(3)(4)</sup><br>Burlington, Ontario, Canada                                                                                                                                                                                                 | Corporate Director<br>Previously served as Senior Vice<br>President, Finance, Chief<br>Financial Officer and other<br>senior executive positions at<br>Zenon Environmental Inc. | 2009              | 711,432                                                                                                    |
| <b>David J. McNally</b><br>Salt Lake City, Utah, USA                                                                                                                                                                                                                      | President and Chief Executive Officer                                                                                                                                           | 2017              | 50,000                                                                                                     |
| <b>Stephen Randall</b><br>Toronto, Ontario, Canada                                                                                                                                                                                                                        | Chief Financial Officer and Secretary                                                                                                                                           | 2017              | 357,307                                                                                                    |
| John E. Schellhorn <sup>(2)(3)(4)</sup><br>Portsmouth, New Hampshire, USA                                                                                                                                                                                                 | President and CEO of Global<br>Kinetics Corporation                                                                                                                             | 2017              | 8,826                                                                                                      |
| Dr. Bruce Giles Wolff <sup>(2)(3)(4)</sup> Professor of Surgery, Mayo         Rochester, Minnesota, USA       Clinic College of Medicine and         Emeritus Chair of the Division of       Colon & Rectal Surgery, Mayo         Clinic (Medical)       Clinic (Medical) |                                                                                                                                                                                 | 2014              | 60,299                                                                                                     |

Notes:

(1) The information as to Common Shares beneficially owned, or controlled or directed, directly or indirectly, not being within the knowledge of the Corporation, has been furnished by the respective nominees individually.

(2) Member of the Audit Committee of the Corporation.

(3) Member of the Compensation Committee of the Corporation.

(4) Member of the Governance Committee of the Corporation.

# **Biographies of Director Nominees**

The following are brief biographies of each of the nominees for director:

## John E. Barker - Director

Mr. Barker is a finance professional with general management experience. Mr. Barker previously acted as the Senior Vice President of Finance, Chief Financial Officer and other senior executive positions at Zenon Environmental Inc., a Toronto Stock Exchange ("**TSX**") listed company, from 2000 to 2006. He was responsible for managing the finance and information technology of over 35 subsidiary companies in 25 different countries. During his career, Mr. Barker has held senior positions in finance and operations as well as overseeing human resources, information technology and procurement. Mr. Barker currently sits as a director, Chair of the Board of Directors and Audit Committee Chair of Ecosynthetix Inc., a TSX listed company. Mr. Barker is a Fellow of the Chartered Professional Accountants of Canada and holds the FCMA designation.

#### David J. McNally - Director, President and Chief Executive Officer

Mr. McNally is the President and Chief Executive Officer of the Corporation. Mr. McNally joined Titan after serving as the founder, President, CEO and Chairman of the Board of Domain Surgical Inc., founded in 2009 and based in Salt Lake City, Utah. Mr. McNally brings substantial experience and extraordinary leadership skills with all facets of building innovative medical device companies including clinically-focused product design and development, capital formation, regulatory clearance, and commercialization. Mr. McNally earned an MBA from the University of Utah, holds a Bachelor of Science degree in Mechanical Engineering from Lafayette College, Easton, PA and is the co-inventor of more than 30 U.S. and international patents associated with ferromagnetic surgical devices and systems, electromagnetic and ultrasonic sensors and medical fluid delivery systems.

## Stephen Randall – Director, Chief Financial Officer and Secretary

Mr. Randall is the Chief Financial Officer and Secretary of the Corporation. He joined the Corporation in March 2010. Previously, Mr. Randall served in senior financial roles with both private, publicly traded and start-up companies in the manufacturing, telecommunications and technology sectors. Mr. Randall holds the Canadian CPA, CGA designation as well as a Hon. B. Comm. and B.A.

## John E. Schellhorn - Director

Mr. Schellhorn is a 32 year veteran of the medical technology industry, where he has held various senior management positions in the United States, Canada and Asia/Pacific. He is currently President and CEO of Global Kinetics Corporation, a Melbourne, Australia headquartered company commercializing the world's first objective measurement technology for patients with Parkinson's disease. From 2012 to 2016, he was President and CEO of Monteris Medical Inc., a Canadian neurosurgery company which employed the world's first MTI compatible robot.

## Bruce Giles Wolff - Director

Dr. Bruce Giles Wolff, M.D., is a Professor of Surgery at Mayo Clinic College of Medicine and Emeritus Chair of the Division of Colon & Rectal Surgery at Mayo Clinic in Rochester, Minnesota. Dr. Wolff has been a member of the Mayo Clinic's Surgical Administrative Committee since 2006. Dr. Wolff is continuing his association with Mayo Clinic, on a reduced surgical schedule, and is the Executive Director for the American Board of Colon and Rectal Surgery. Dr. Wolff has written extensively on colon and rectal surgery issues in almost 300 articles for publications such as The American Journal of Surgery, the Canadian Journal of Surgery, the World Journal of Surgery, Mayo Clinic Proceedings, the America Surgeon, the Journal of Gastrointestinal Surgery, Diseases of the Colon & Rectum, Annals of Surgery and the British Journal of Surgery. Dr. Wolff received his M.D. from Duke University School of Medicine and interned and completed his residency at the New York Hospital Cornell Medical Centre. He received a fellowship from the Mayo Clinic in 1981-82 and since then he has taught and practiced medicine at the Mayo Clinic.

## Corporate Cease Trade Orders, Bankruptcies, Penalties or Sanctions

To the knowledge of the Corporation, none of the persons nominated for election as directors at the Meeting: (a) is, as at the date of this Circular, or has been, within the 10 years before the date of this Circular, a director, chief executive officer or chief financial officer of any company that: (i) was subject to a cease trade order, an order similar to a cease trade order or an order that denied the relevant company access to any exemption under securities legislation, that was in effect for a period of more than 30 consecutive days (an "**Order**") that was issued while the person was acting in the capacity as director, chief executive officer or chief financial officer; or (ii) was subject to an Order that was issued after the person ceased to be a director, chief executive officer or chief financial officer; (b) is, as at the date of this Circular, or has been within 10 years before the date of this Circular, a director or executive officer or chief financial officer; (b) is, as at the date of this Circular, or has been within 10 years before the date of this Circular, a director or executive officer or chief financial officer; (b) is, as at the date of this Circular, or has been within 10 years before the date of this Circular, a director or executive officer or any company that, while that person was acting in that capacity, or within a year of that person ceasing to act in that capacity, became bankrupt, are a proposal under any legislation relating to bankruptcy or insolvency or was subject to or instituted any proceedings, arrangement or compromise with creditors or had a receiver, receiver manager or trustee appointed to hold its assets; or (c) has, within the 10 years before the date of this Circular, become bankrupt, made a proposal under any legislation relating to bankruptcy or insolvency or proceedings, arrangement or compromise with creditors, or had a receiver, receiver manager or trustee appointed to hold its assets; or (c) has, within the 10 years before the date of this Circular, become b

To the knowledge of the Corporation, none of the persons nominated for election as directors at the Meeting, nor any personal holding company thereof owned or controlled by them: (i) has been subject to any penalties or sanctions imposed by a court relating to securities legislation or by a securities regulatory authority or has entered into a settlement agreement with a securities regulatory authority; or (ii) has been subject to any other penalties or sanctions imposed by a court or regulatory body that would likely be considered important to a reasonable investor in making an investment decision.

## Interest of Management and Others in Material Transactions

No proposed director of the Corporation or informed person, or any associate or affiliate of a proposed director of the Corporation or informed person has any material interest, direct or indirect, in any transaction in which the Corporation has participated since the commencement of the Corporation's most recently completed financial year, or in any proposed transaction which has materially affected or will materially affect the Corporation.

## STATEMENT OF EXECUTIVE COMPENSATION

## Named Executive Officers

The Corporation had five Named Executive Officers in 2017, being:

- (1) David McNally, President and Chief Executive Officer
- (2) Stephen Randall, Chief Financial Officer and Secretary
- (3) Perry Genova, Senior Vice President, Research and Development
- (4) Curtis Jensen, Vice President, Quality and Regulatory Affairs, and
- (5) Chris Seibert, Vice President, Business Development

# (collectively, the "Named Executive Officers" or "NEO").

### **Compensation Discussion and Analysis**

The Board of Directors is responsible for evaluating compensation for the President and Chief Executive Officer and the Chief Financial Officer and reviewing their salaries and any bonuses on an annual basis. The President and Chief Executive Officer and Chief Financial Officer are responsible for evaluating and reviewing the salaries and bonuses of all other employees and consultants of the Corporation. While the Board of Directors of the Corporation has not adopted a written policy concerning the compensation of Named Executive Officers, it has developed a consistent approach and philosophy relating to compensation. The overriding principles in the determination of executive compensation are the need to provide total compensation packages that will attract and retain qualified and experienced executives, reward the executives for their contribution to the overall success of the Corporation and integrate the longer term interests of the executives with the investment objectives of the Corporation's shareholders.

As noted in the previous paragraph, the Corporation has five Named Executive Officers and places primary importance on the talent of these employees to manage and grow the Corporation. Based on the size of the Corporation and its relatively small number of employees, the Corporation's executives are required to be multi-disciplined, self-reliant and highly experienced. In determining specific compensation amounts for the executive officers, the Board of Directors considers factors such as experience, individual performance, length of service, role in achieving corporate objectives, positive research and development results, stock price and compensation compared to other employment opportunities for executives.

The Corporation is an early-stage company engaged in the development and commercialization of robotic surgical technologies. As the Corporation is in the product development stage, it cannot rely on revenues from its operations to finance its activities and advance its goals. Consequently, the Corporation looks to raising the requisite capital to finance such activities through equity financings, which are influenced by the financial market's assessment of the Corporation's overall enterprise value and its prospects. These in turn are influenced, to a great extent, by the results of its research and development activities and progress in commercializing robotic surgical technologies. The contribution that each of the President and Chief Executive Officer and the Chief Financial Officer make to this endeavour, on a subjective analysis by the Compensation Committee and the Board of Directors at the end of each fiscal year, is the primary factor in determining aggregate compensation. In considering such contribution, the Board of Directors's robotic surgical technology; (ii) the identification and attainment of appropriate milestones that adequately reflect the ongoing development of the Corporation's robotic surgical technology; (iii) the formation and development of key partnerships with leading academic and research organizations through which the Corporation's products can be tested, and (iv) the recruitment, management and retention of qualified technical and other personnel, among other things.

Compensation for Named Executive Officers consists of base salary, cash bonuses and incentive stock options. In establishing compensation, the Corporation attempts to pay competitively in the aggregate as well as deliver an appropriate balance between annual compensation (base salary and cash bonuses) and option based compensation (incentive stock options).

The role of the Compensation Committee in recommending to the Board the compensation for Named Executive Officers is described under "Compensation Committee".

The decisions in respect of each individual compensation element are taken into account in determining each of the other compensation elements to ensure a Named Executive Officer's overall compensation is consistent with the objectives of the compensation program while considering that not all objectives are applicable to each Named Executive Officer.

In 2017, the Compensation Committee retained Hugessen Consulting Inc. ("Hugessen") to serve as the Committee's independent compensation consultant. Hugessen provides independent advice to the Compensation Committee with respect to executive and director compensation and relative governance matters. In 2017, Hugessen provided the following services to the Compensation Committee:

- Completed a comprehensive review of executive and director pay levels;
- Advised the Compensation Committee in developing a short-term and long-term incentive framework; and
- Provided additional input and advice to the Compensation Committee, as requested.

The table below outlines fees paid to Hugessen in 2017:

| Hugessen Consulting Inc.            | 2017 Fees (C\$) |
|-------------------------------------|-----------------|
| Executive Compensation Related Fees | \$50,602        |
| All Other Fees                      | Nil             |
| Total                               | \$50,602        |

The Compensation Committee did not follow a formal practice to consider the implications of the risks associated with the Corporation's compensation policies and practices in 2017.

The Corporation has established a stock option plan for officers, directors, employees and service providers of the Corporation, prepared in compliance with the requirements of the TSX, which is administered by the Board of Directors. The purpose of the Corporation's stock option plan is to advance the interests of the Corporation by closely aligning the participants' personal interests with those of the Corporation's shareholders generally. Subject to the provisions of the stock option plan, the Board of Directors determines and designates from time to time the optionees to whom options are to be granted, the number of Common Shares to be optioned and the other terms and conditions of the stock option grant. The Board of Directors considers factors such as individual performance, the significance of individual contribution to the success of the Corporation, experience, and length of service in determining the amounts of options awarded.

## **Compensation Committee**

The awarding of annual bonus and option-based awards is subject to the discretion of the Compensation Committee and Board of Directors, exercised annually, as more fully described herein, and is at risk and not subject to any minimum amount. Furthermore, if the Compensation Committee determines that the compensation of the Corporation for certain executives and other personnel, including option-based awards, is low compared to comparable companies, the Compensation Committee may determine to grant option-based awards to assist the Corporation in retaining and attracting key executive talent and to further align the compensation of the executive officers and other key employees with long-term interests of shareholders. The Compensation Committee and the Board of Directors also have the discretion to adjust the weightings assigned to objectives for executives, including the President and Chief Executive Officer, and award a higher or lower annual incentive value to one or more executive officers than achievement of applicable corporate objectives might otherwise suggest, based on their assessment of the challenges and factors that might have impacted the ability to achieve the objective or attain the highest assessment ranking, or other factors such as rewarding individual performance or recognizing the ability (or inability) of the Corporation to achieve its goals and strategic objectives and create shareholder value. In exercising its discretion, the Compensation Committee and Board of Directors may also consider, among other factors, risk management and regulatory compliance, the performance of executive officers in managing risk and whether payment of the incentive compensation might present or give rise to material risks to the Corporation or otherwise affect the risks faced by the Corporation and the management of those risks.

In assessing the general competitiveness of the compensation of the Corporation's Named Executive Officers, the Compensation Committee considers base salary, total cash compensation and total direct compensation (including the value of long term incentives) relative to a comparator group of publicly listed companies and reviews benchmark data composed of the group's executive compensation data for matching positions. The peer group consists of the following comparable technology companies:

 Compensation Peer Group

 Corindus Vascular Robotics, Inc.
 Bovie Medical Corporationa

 Neovasc Inc.
 Profound Medical Corp.

 Misonix, Inc.
 Ekso Bionics Holdings, Inc.

 IRadimed Corporation
 MRI Interventions, Inc.

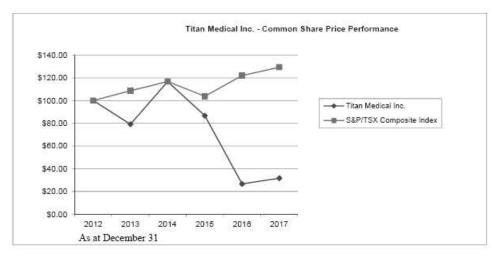
 Microbot Medical Inc.
 ReWalk Robotics Ltd.

 BIOLASE, Inc.
 Medigus Ltd.

In addition to advice obtained from compensation consultants, the Compensation Committee undertakes its own assessment of the competitiveness of the Corporation's compensation and incentive programs, based on information obtained from such consultants and other information that may be available to the Compensation Committee. Decisions as to compensation are made by the Compensation Committee and the Board of Directors and may reflect factors and considerations other than the information and, if applicable, recommendations provided by compensation consultants.

## Performance Graph

The Common Shares of the Corporation are listed on the TSX and also trade on the OTCQB. The following graph illustrates the Corporation's cumulative shareholder return over the five most recently completed financial years, as measured by the closing price of the Common Shares at the end of the financial years ended December 31, 2013, 2014, 2015, 2016 and 2017, assuming an initial investment of CDN\$100 on December 31, 2012, compared to the closing price of the S&P/TSX Composite Index over the same period.



The following table shows the value of CDN\$100 invested in Common Shares on December 31, 2012 compared to CDN\$100 invested in the S&P/TSX Composite Index\*:

|                         | 31-Dec-12 | 31-Dec-13 | 31-Dec-14 | 31-Dec-15 | 31-Dec-16 | 31-Dec-17 |
|-------------------------|-----------|-----------|-----------|-----------|-----------|-----------|
| Titan Medical Inc.      | 100       | 79.17     | 116.67    | 86.67     | 26.67     | 31.67     |
| S&P/TSX Composite Index | 100       | 108.68    | 116.75    | 103.80    | 121.97    | 129.33    |

#### \*All amounts in Canadian \$.

The compensation paid by the Corporation to its Named Executive Officers in 2017 was not based in whole or in part on the trading price of the Common Shares in 2017 and does not compare to the trends in such trading price or the above market indices.

#### Summary Compensation Table

The following table and the notes thereto sets forth information concerning annual total compensation for each Named Executive Officer in 2017, in respect of the fiscal years ended December 31, 2017, 2016, and 2015. All amounts in the table below and the notes thereunder are stated in Titan's functional and presentation currency, which is U.S. dollars. The exercise prices of options are presented in Canadian currency as they are exercisable in Canadian dollars. Canadian employees are compensated in Canadian dollars. For reporting purposes, the Canadian dollar amount is translated to U.S. dollars using the noon exchange rate, as quoted by the Bank of Canada, on the payroll date.

| Name and<br>principal<br>position                          | Year Ended<br>Dec. 31 | Salary<br>(U.S.\$) | Share- based<br>Awards<br>(U.S.\$) | Option- based <sup>(1)</sup><br>Awards<br>(U.S.\$) | Plan Comp<br>(\$)         | Non-equity Incentive<br>Plan Compensation<br>(\$) |   | All Other<br>Compensation<br>(U.S.\$) | Total<br>Compensation<br>(U.S.\$) |
|------------------------------------------------------------|-----------------------|--------------------|------------------------------------|----------------------------------------------------|---------------------------|---------------------------------------------------|---|---------------------------------------|-----------------------------------|
|                                                            |                       |                    |                                    |                                                    | Annual Incentive<br>Plans | Long- term<br>Incentive Plans                     |   |                                       |                                   |
| David                                                      | 2017                  | 300,000            | 0                                  | 2,027,215                                          | 0                         | 0                                                 | 0 | 0                                     | 2,327,215                         |
| McNally                                                    | 2016                  | 0                  | 0                                  | 0                                                  | 0                         | 0                                                 | 0 | 0                                     | 0                                 |
| President &<br>CEO                                         | 2015                  | 0                  | 0                                  | 0                                                  | 0                         | 0                                                 | 0 | 0                                     | 0                                 |
| Stephen                                                    | 2017                  | 187,038            | 0                                  | 0                                                  | 0                         | 0                                                 | 0 | 0                                     | 187,038                           |
| Randall                                                    | 2016                  | 152,716            | 0                                  | 115,920                                            | 0                         | 0                                                 | 0 | 0                                     | 268,636                           |
| Chief<br>Financial<br>Officer                              | 2015                  | 150,515            | 0                                  | 79,434                                             | 0                         | 0                                                 | 0 | 0                                     | 229,949                           |
| Perry                                                      | 2017                  | 206,250            | 0                                  | 251,735                                            | 0                         | 0                                                 | 0 | 0                                     | 457,985                           |
| Genova                                                     | 2016                  | 0                  | 0                                  | 0                                                  | 0                         | 0                                                 | 0 | 0                                     | 0                                 |
| Senior Vice<br>President<br>Research<br>and<br>Development | 2015                  | 0                  | 0                                  | 0                                                  | 0                         | 0                                                 | 0 | 0                                     | 0                                 |
| Curtis                                                     | 2017                  | 150,000            | 0                                  | 245,111                                            | 0                         | 0                                                 | 0 | 0                                     | 395,111                           |
| Jensen                                                     | 2016                  | 0                  | 0                                  | 0                                                  | 0                         | 0                                                 | 0 | 0                                     | 0                                 |
| Vice<br>President<br>Quality and<br>Regulatory<br>Affairs  | 2015                  | 0                  | 0                                  | 0                                                  | 0                         | 0                                                 | 0 | 0                                     | 0                                 |
| Chris                                                      | 2017                  | 150,000            | 0                                  | 0                                                  | 0                         | 0                                                 | 0 | 0                                     | 150,000                           |
| Seibert                                                    | 2016                  | 111,020            | 176,289                            | 0                                                  | 0                         | 0                                                 | 0 | 0                                     | 287,309                           |
| Vice<br>President<br>Business<br>Development               | 2015                  | 0                  | 0                                  | 0                                                  | 0                         | 0                                                 | 0 | 0                                     | 0                                 |

Notes:

(1) The fair value of options granted was estimated at the date of grant using the Black-Scholes option pricing model using assumptions based on expected life, risk free rate, expected dividend yield and expected volatility.

# Outstanding share-based awards and option-based awards

The following table shows all awards granted to Named Executive Officers and outstanding on December 31, 2017.

|               |                                                                        | Option-bas                             | ed Awards                                 | Share-based Awards                                                |                                                                                |                                                                                              |                                                                                                           |
|---------------|------------------------------------------------------------------------|----------------------------------------|-------------------------------------------|-------------------------------------------------------------------|--------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|
| Name          | Number of<br>securities<br>underlying<br>unexercised<br>options<br>(#) | Option<br>Exercise<br>Price<br>CDN(\$) | Option<br>Expiration<br>Date<br>(DD-M-YY) | Value of<br>unexercised<br>in-the-<br>money<br>options<br>USD(\$) | Number of<br>shares or<br>units of<br>shares that<br>have not<br>vested<br>(#) | Market or<br>payout value<br>of share-<br>based awards<br>that have not<br>vested<br>USD(\$) | Market or<br>payout<br>value of vested<br>share-based<br>awards not paid<br>out or distributed<br>USD(\$) |
| David McNally | 8,325,572                                                              | 0.57                                   | 17-Jan-24                                 | 0                                                                 | 0                                                                              | 0                                                                                            | 0                                                                                                         |
| Stephen       | 125,038                                                                | 0.56                                   | 02-Aug-18                                 | 0                                                                 | 0                                                                              | 0                                                                                            | 0                                                                                                         |
| Randall       | 69,835                                                                 | 1.94                                   | 21-May-19                                 | 0                                                                 | 0                                                                              | 0                                                                                            | 0                                                                                                         |
|               | 99,383                                                                 | 1.72                                   | 09-Jun-20                                 | 0                                                                 | 0                                                                              | 0                                                                                            | 0                                                                                                         |
|               | 39,567                                                                 | 1.02                                   | 23-Dec-20                                 | 0                                                                 | 0                                                                              | 0                                                                                            | 0                                                                                                         |
|               | 527,667                                                                | 1.00                                   | 24-Aug-21                                 | 0                                                                 | 0                                                                              | 0                                                                                            | 0                                                                                                         |
| Perry         | 500,000                                                                | 0.50                                   | 7-Feb-24                                  | 0                                                                 | 0                                                                              | 0                                                                                            | 0                                                                                                         |
| Genova        | 1,000,000                                                              | 0.43                                   | 17-Apr-24                                 | 0                                                                 | 0                                                                              | 0                                                                                            | 0                                                                                                         |
| Curtis        | 500,000                                                                | 0.43                                   | 17-Apr-24                                 | 0                                                                 | 0                                                                              | 0                                                                                            | 0                                                                                                         |
| Jensen        | 568,493                                                                | 0.48                                   | 8-Nov-24                                  | 0                                                                 | 0                                                                              | 0                                                                                            | 0                                                                                                         |
| Chris         | 269,996                                                                | 1.08                                   | 27-Jan-21                                 | 0                                                                 | 0                                                                              | 0                                                                                            | 0                                                                                                         |
| Seibert       | 351,778                                                                | 1.00                                   | 24-Aug-21                                 | 0                                                                 | 0                                                                              | 0                                                                                            | 0                                                                                                         |

The following table shows the value from incentive plans vested or earned by Named Executive Officers under the Corporation's incentive plans and the annual incentive bonus payout during the financial year ended December 31, 2017.

| Name            | Option-based awards –<br>Value vested during the year<br>USD(\$) | Share-based awards –<br>Value vested during the<br>year USD(\$) | Non-equity incentive plan<br>compensation – Value earned<br>during the year USD(\$) |
|-----------------|------------------------------------------------------------------|-----------------------------------------------------------------|-------------------------------------------------------------------------------------|
| David McNally   | 0                                                                | 0                                                               | 0                                                                                   |
| Stephen Randall | (288,040)                                                        | 0                                                               | 0                                                                                   |
| Perry Genova    | 0                                                                | 0                                                               | 0                                                                                   |
| Curtis Jensen   | 0                                                                | 0                                                               | 0                                                                                   |
| Chris Seibert   | (72,701)                                                         | 0                                                               | 0                                                                                   |

## Stock Option Plan and Stock Options

See "Statement of Executive Compensation - Compensation Discussion and Analysis" for information on the Corporation's stock option plan.

#### Securities Authorized for Issuance Under Equity Compensation Plan

The following table sets forth certain information as of December 31, 2017 with respect to compensation plans under which equity securities of the Corporation are authorized for issuance:

| Plan Category                                           | Number of securities to be issued | Weighted–average exercise     | Number of securities remaining |
|---------------------------------------------------------|-----------------------------------|-------------------------------|--------------------------------|
|                                                         | upon exercise of outstanding      | price of outstanding options, | for future issuance under      |
|                                                         | options, warrants and rights      | warrants and rights           | equity compensation plan       |
| Equity compensation plan<br>approved by securityholders | 17,748,269                        | \$0.71                        | 20,311,899                     |

#### Termination and Change of Control Benefits

No Named Executive Officer is entitled to any form of compensation as a result of termination or change of control of the Corporation.

## Indebtedness of Directors and Executive Officers

No director or executive officer of the Company, nor any proposed nominee for election as a director of the Company, nor any associate or affiliate of any of them is or was indebted to the Company at any time since the beginning of the last completed financial year of the Company.

#### **Compensation of Directors**

For the period from January 1, 2017 to June 30, 2017, compensation of directors was as follows: each director of the Corporation received an annual retainer of CDN \$15,000 and an additional CDN \$1,000 for each board meeting attended. Each non-employee director who also served as chair of a committee of the board received an additional CDN \$2,500.

Effective July 1, 2017, these amounts increased as follows: the annual retainer for directors increased to CDN \$30,000, meeting fees for Board and Committee Chairs increased to CDN \$3,200 and US \$2,500 and meeting fees for other directors increased to CDN \$1,300 and US \$1,000.

The Board of Directors determines the form of payment of the compensation paid to directors. All compensation to directors is paid through the issuance of stock options, or cash, at the discretion of the directors, on an annual basis. Currently all directors compensation is paid through a combination of cash and stock options. The table below reflects in detail the compensation earned by non-employee directors in the 12-month period ended December 31, 2017.

| Name                | Fees<br>Earned<br>CDN(\$) | Share-based<br>Awards<br>CDN(\$) | Option-based<br>Awards<br>CDN(\$) | Non-equity<br>Incentive Plan<br>Compensation<br>CDN(\$) | Pension<br>Value<br>CDN(\$) | All Other<br>Compensation<br>CDN(\$) | Total<br>CDN(\$) |
|---------------------|---------------------------|----------------------------------|-----------------------------------|---------------------------------------------------------|-----------------------------|--------------------------------------|------------------|
| Martin C. Bernholtz | 48,200                    | 0                                | 8,750                             | 0                                                       | 0                           | 0                                    | 56,950           |
| John E. Barker      | 49,200                    | 0                                | 8,750                             | 0                                                       | 0                           | 0                                    | 57,950           |
| Dr. Bruce Wolff     | 38,359                    | 0                                | 8,750                             | 0                                                       | 0                           | 0                                    | 47,109           |
| John Schellhorn     | 28,650                    | 0                                | 0                                 | 0                                                       | 0                           | 0                                    | 28,650           |

# Directors' and Officers' Insurance

The Corporation maintains insurance for the benefit of the Corporation and its directors and officers as a group, in respect of the performance by them of duties of their office. The amount of insurance purchased for the period commencing January 1, 2017 and ended December 31, 2017, was for an aggregate limit of liability (inclusive of costs of defence) of \$7,000,000. There is a deductible amount on a per loss basis of up to \$25,000 for a claim against the Corporation. The premium is paid by the Corporation without distinction as to directors as a group or officers as a group. The premium paid for such insurance in 2017 was \$16,389.

## Outstanding share-based awards and option-based awards

The following table shows all option-based and share-based awards granted to non-employee directors and outstanding on December 31, 2017.

|            |                                                                        | Option-bas                                          | ed Awards                                 |                                                               | 1                                                                           | Share-based Award                                                                        | s                                                                                                      |
|------------|------------------------------------------------------------------------|-----------------------------------------------------|-------------------------------------------|---------------------------------------------------------------|-----------------------------------------------------------------------------|------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|
| Name       | Number of<br>securities<br>underlying<br>unexercised<br>options<br>(#) | Option<br>Exercise<br>Price per<br>share<br>CDN(\$) | Option<br>Expiration<br>Date<br>(DD-M-YY) | Value of<br>unexercised<br>in-the-money<br>options<br>USD(\$) | Number of<br>shares or<br>units of shares<br>that have not<br>vested<br>(#) | Market or<br>payout value<br>of share-based<br>awards that<br>have not<br>vested<br>(\$) | Market or payout<br>value of vested<br>share-based<br>awards<br>not paid out or<br>distributed<br>(\$) |
| Martin C.  | 77,415                                                                 | 0.56                                                | 02-Aug-18                                 | 0                                                             | 0                                                                           | (\$)                                                                                     | ) 0                                                                                                    |
| Bernholtz  | 21,649                                                                 | 1.94                                                | 21-May-19                                 | 0                                                             | 0                                                                           | (                                                                                        | 0                                                                                                      |
|            | 31,306                                                                 | 1.72                                                | 09-Jun-20                                 | 0                                                             | 0                                                                           | (                                                                                        | 0                                                                                                      |
|            | 12,463                                                                 | 1.02                                                | 23-Dec-20                                 | 0                                                             | 0                                                                           | (                                                                                        | 0                                                                                                      |
|            | 167,094                                                                | 1.00                                                | 24-Aug-21                                 | 0                                                             | 0                                                                           | (                                                                                        | 0 0                                                                                                    |
| John E.    | 72,991                                                                 | 0.56                                                | 02-Aug-18                                 | 0                                                             | 0                                                                           | (                                                                                        | 0                                                                                                      |
| Barker     | 22,813                                                                 | 1.94                                                | 21-May-19                                 | 0                                                             | 0                                                                           | (                                                                                        | 0                                                                                                      |
|            | 31,306                                                                 | 1.72                                                | 09-Jun-20                                 | 0                                                             | 0                                                                           | (                                                                                        | 0                                                                                                      |
|            | 12,463                                                                 | 1.02                                                | 23-Dec-20                                 | 0                                                             | 0                                                                           | (                                                                                        | 0                                                                                                      |
|            | 170,612                                                                | 1.00                                                | 24-Aug-21                                 | 0                                                             | 0                                                                           | (                                                                                        | 0                                                                                                      |
| Bruce G.   | 31,658                                                                 | 1.94                                                | 21-May-19                                 | 0                                                             | 0                                                                           | (                                                                                        | 0                                                                                                      |
| Wolff      | 24,846                                                                 | 1.72                                                | 09-Jun-20                                 | 0                                                             | 0                                                                           | (                                                                                        | 0                                                                                                      |
|            | 9,891                                                                  | 1.02                                                | 23-Dec-20                                 | 0                                                             | 0                                                                           | (                                                                                        | 0                                                                                                      |
|            | 158,300                                                                | 1.00                                                | 24-Aug-21                                 | 0                                                             | 0                                                                           | (                                                                                        | 0 0                                                                                                    |
| John       | 368,059                                                                | 0.15                                                | 7-Sept-24                                 | 82,813                                                        | 0                                                                           | (                                                                                        | 0                                                                                                      |
| Schellhorn |                                                                        |                                                     |                                           |                                                               |                                                                             |                                                                                          |                                                                                                        |

# Incentive Plan Awards – Value Vested or Earned During Fiscal Year and December 31, 2017

The following table shows the value from incentive plans vested or earned by non-employee directors under the Corporation's incentive plans and the annual incentive bonus payout during the financial year ended December 31, 2017.

| Name            | Option-based awards –        | Share-based awards –    | Non-equity incentive plan   |  |
|-----------------|------------------------------|-------------------------|-----------------------------|--|
|                 | Value vested during the year | Value vested during the | compensation – Value earned |  |
|                 | USD(\$)                      | year (\$)               | during the year (\$)        |  |
| John Schellhorn | 82,813                       | 0                       | 0                           |  |

## CORPORATE GOVERNANCE PRACTICES

The Canadian Securities Administrators have adopted National Instrument 58-101 – *Disclosure of Corporate Governance Practices* (the "**Disclosure Rule**"). The Disclosure Rule establishes disclosure requirements regarding corporate governance practices of a reporting issuer as well as the requirement to file any written code of business conduct and ethics that a reporting issuer has adopted. Set out below is a description of the Corporation's approach to corporate governance as required by the Disclosure Rule.

## **Board of Directors**

Currently, three of the five members of the Board of Directors are independent directors. An independent director is defined as a director who has no direct or indirect material relationship with the Corporation, being a relationship which could be reasonably expected to interfere with the exercise of a director's independent judgement. As at December 31, 2017, Messrs. McNally and Randall are considered to be non-independent by virtue of their management position with the Corporation and their employment relationships with the Corporation. The Board believes that their extensive knowledge of the Corporation's business and affairs is beneficial to the other directors and their participation as directors contributes to the effectiveness of the Board. Messrs. John E. Barker, John Schellhorn and Bruce Wolff are considered to be independent directors. These determinations were made by the Board based upon an examination of the factual circumstances of each director and consideration of any interests, business or relationships, which any director may have with the Corporation.

As part of each regularly scheduled quarterly board meeting, the independent directors have an in camera session, exclusive of non-independent directors and management. At the present time, the Board believes that the knowledge, experience and qualifications of its independent directors are sufficient to ensure that the Board can function independently of management and discharge its responsibilities.

The Interim Chairman of the Board of Directors, John E. Barker, is an independent director. The Corporation does not have a designated lead director. The Board utilizes its own in-house expertise, and that of its legal counsel, to provide advice and consultation on current and anticipated matters of corporate governance.

## **Director Meetings**

The Board of Directors held 22 meetings during the financial year ended December 31, 2017. The following table summarizes the attendance record for each of the directors at meetings of the Board of Directors, Audit Committee, Compensation Committee and Corporate Governance. The Nominating Committee did not hold any meetings during the year.

| Name                               |                           | Number of Meetings Attended by the Directors |                        |                         |  |  |  |
|------------------------------------|---------------------------|----------------------------------------------|------------------------|-------------------------|--|--|--|
|                                    | <b>Board of Directors</b> | Audit Committee                              | Compensation Committee | Governance<br>Committee |  |  |  |
| Martin C. Bernholtz <sup>(1)</sup> | 22/22                     | 4/4                                          | 5/6                    | 1/1                     |  |  |  |
| John E. Barker                     | 22/22                     | 4/4                                          | 6/6                    | 1/1                     |  |  |  |
| David McNally                      | 22/22                     | 4/4                                          | 6/6                    | 1/1                     |  |  |  |
| Stephen Randall                    | 22/22                     | 4/4                                          | 6/6                    | 1/1                     |  |  |  |
| Bruce Wolff                        | 20/22                     | 4/4                                          | 6/6                    | 1/1                     |  |  |  |
| John Schellhorn                    | 7/22                      | 2/4                                          | N/A                    | N/A                     |  |  |  |

(1) Martin Bernholtz resigned from his position as director and chairman of the Company effective March 15, 2018.

## **Other Reporting Issuer Experience**

The following directors of the Corporation are directors of the following reporting issuers (other than the Corporation) as of the date of this Circular:

| Name           | Name of Reporting Issuer | Name of Exchange/Market |  |
|----------------|--------------------------|-------------------------|--|
| John E. Barker | Ecosynthetix Inc.        | TSX                     |  |

#### **Board Mandate**

The Board of Directors is responsible for the overall stewardship of the Corporation and operates pursuant to a written mandate, which was updated and approved by the Board on February 10, 2015 and as set out in Schedule "A" to this management information circular.

#### **Position Descriptions**

The Board has developed written position descriptions for the Chair of the Board of Directors and the chair of each committee. With respect to management's responsibilities, generally, any matters of material substance to the Corporation are submitted to the Board for, and are subject to, its approval. Such matters include those matters which must by law be approved by the Board (such as share issuances) and other matters of material significance to the Corporation, including any debt or equity financings, investments, acquisitions and divestitures, and the incurring of material expenditures or legal commitments. The Board and/or its audit committee also reviews and approves the Corporation's major communications with shareholders and the public including the annual report, if any, (and financial statements contained therein), quarterly reports to shareholders, the annual management information circular and the annual information form. The specific corporate objectives which the chief executive officer is responsible for meeting (aside from the overall objective of enhancing shareholder value) are, in the Corporation's case, typically related to the advancement, growth, management and financing of the Corporation and its research and development project and matters ancillary thereto.

## **Orientation and Continuing Education**

The Corporation does not provide a formal orientation or education program for Board members, as it believes that such programs are not appropriate for a development stage company with an experienced Board, the members of which have been selected for their specific expertise.

The Corporation's directors are highly experienced and knowledgeable, both individually and as a group. The directors have either a medical or business background and have long careers in or related to the medical, health or financial industry and are intimately familiar with the Corporation's project, through sufficient interactions with management and technology developers.

To ensure that the Board has and maintains the skill and knowledge necessary for them to meet their obligations as directors of the Corporation, each of the directors has observed the performance of the SPORT Surgical System. Summary technology presentations by management relating to various aspects of the Corporation's project is made at meetings of the Board. The Board believes that discussion among the directors and management at these meetings provides a valuable learning resource for the directors with non-technical expertise in the subject matter presented, and that those directors provide management with valuable insights into broader issues facing the Corporation.

#### Ethical Business Conduct

The Corporation is committed to maintaining high standards of corporate governance and this philosophy is communicated by the Board to management, and by management to employees, on a regular basis.

In order to ensure that the directors exercise independent judgment in considering transactions and agreements, the Board requires that all directors declare any conflicts of interest with issues or situations as they arise. This would include transactions/agreements in which a director/officer has material interest.

# Nomination of Directors

The Corporate Governance and Nominating Committee is a standing committee appointed by the Board and it is responsible for overseeing and assessing the functioning of the Board and the committees of the Board and for the development, recommendation to the Board, implementation and assessment of effective corporate governance principles. The Committee's responsibilities also include identifying candidates for directorship and recommending that the Board select qualified director candidates for election at the next annual meeting of shareholders.

17

The Corporate Governance and Nominating Committee is composed entirely of independent directors, being John E. Barker, John Schellhorn and Bruce Wolff.

## Audit Committee

The Board of Directors has established an Audit Committee. The Audit Committee met four times during the financial year ended December 31, 2017.

## Audit Committee Charter

The text of the Audit Committee Charter is attached as Schedule "A" to the Corporation's Annual Information Form for the year ended December 31, 2017, a copy of which is available on SEDAR.

## Composition of the Audit Committee

As of the date of this information circular, the table below sets out the members of the Audit Committee and states whether they are financially literate and/or independent.

| Director        | Independent | Financially Literate |
|-----------------|-------------|----------------------|
| John E. Barker  | Yes         | Yes                  |
| John Schellhorn | Yes         | Yes                  |
| Dr. Bruce Wolff | Yes         | Yes                  |

# Relevant Education and Experience

Messrs. Barker and Schellhorn are directors on the Corporation's Audit Committee and have been senior officers and/or directors of publicly traded companies and business executives for a number of years. Although Dr. Wolff does not have experience as a director or officer of any other publicly traded company, he has served as a director of the Corporation since March 11, 2014. Additionally, Dr. Wolff is a former President of the American Society of Colon and Rectal Surgeons, a former Director and President of the American Board of Colon and Rectal Surgery and a former Vice President and Director of the Foundation for Surgical Fellowships. In these positions, each director has been responsible for receiving financial information relating to the entities of which they were directors. They had, or have developed an understanding of financial statements generally and understand how those statements are used to assess the financial position of a company and its operating results. Each member of the Audit Committee also has a significant understanding of the business in which the Corporation is engaged and has an appreciation for the relevant accounting principles for the Corporation's business.

## External Auditor Service Fees

The table below sets out all fees billed by the Corporation's external auditor in respect of the last two financial years. The Audit Committee has adopted procedures for the engagement of non-audit services as described in section 3 of its charter under "Duties and Responsibilities".

| Financial Year Ended | Audit Fees <sup>(1)</sup> | Audit-Related Fees <sup>(2)</sup> | Tax Fees <sup>(3)</sup> | All Other Fees <sup>(4)</sup> |
|----------------------|---------------------------|-----------------------------------|-------------------------|-------------------------------|
| December 31, 2017    | \$47,695                  | \$22,430                          | -                       | \$126,941                     |
| December 31, 2016    | \$42,083                  | \$25,774                          | \$1,512                 | \$114,249                     |

Notes:

(1) "Audit Fees" are fees billed by the Corporation's external auditor for services provided in auditing the Corporation's financial statements for the financial year.

(2) "Audit-Related Fees" are fees not included in Audit Fees that are billed by the auditor for assurance and related services that are reasonably related to performing the audit or reviewing the Corporation's interim financial statements.

(3) "Tax Fees" are fees billed by the auditor for professional services rendered for tax compliance, tax advice and tax planning.

(4) "All Other Fees" are fees billed by the auditor for services provided relating to the issuance of prospectus supplements during the year

#### **Compensation and Compensation Committee**

Compensation matters are dealt with by the Compensation Committee of the Corporation. The function of the Compensation Committee is to review the compensation terms of each officer of the Corporation annually as well as at any other times as necessary. After considering inputs from senior management, the Compensation Committee makes a recommendation to the Board for approved compensation terms for each officer of the Corporation. Among other things, the Compensation Committee also recommends the structure of the compensation in terms of the amount of cash and/or number of options to be granted. Dr. Bruce Wolff is the chair of Compensation Committee and has served in such capacity since 2016. He has several years of experience in compensation administration, gained through senior leadership roles within the medical community. The other members of the Compensation Committee have several years of relevant experience, having served as senior business executives with other companies and as members of compensation committees of other companies.

All three members of the Compensation Committee, namely, Messrs. Barker, Schellhorn and Wolff, are considered to be independent directors. The Compensation Committee met six times during the financial year ended December 31, 2017.

#### **Other Board Committees**

The Board has no standing committee other than the Audit Committee, the Compensation Committee and the Corporate Governance and Nominating Committee.

#### Assessments

The Board, its committees and individual directors are not regularly assessed with respect to their effectiveness and contribution, as the Board believes that such assessments are generally more appropriate for corporations of significantly larger size and complexity than the Corporation and which may have significantly larger boards of directors. A more formal assessment process will be instituted as, if, and when the Board deems necessary.

#### **Director Tenure**

It is proposed that each of the persons elected as a director at the Meeting will serve until the close of the next annual meeting of the Corporation or until his or her successor is elected or appointed. The Board has not adopted a term limit for directors. The Board believes, at this time, that the imposition of director term limits on a board may discount the value of experience and continuity amongst board members and runs the risk of excluding experienced and potentially valuable board members. This decision is subject to review on an annual basis. The Board does not follow a formal director assessment procedure in evaluating Board members. However, the Board believes that it can best strike the right balance between continuity and fresh perspectives without mandated term limits.

## Representation of Women on the Board and in Executive Officer Positions

The Corporate Governance and Nominating Committee's Charter encourages diversity in the composition of the Board of Directors and requires periodic review of the composition of the Board of Directors as a whole to recommend, if necessary, measures to be taken so that the Board of Directors reflects the appropriate balance of diversity, knowledge, experience, skills and expertise required for the Board of Directors as a whole. Accordingly, while the Board of Directors has not adopted a written policy nor targets relating to the identification and nomination of women directors, the Board of Directors does take into consideration a nominee's potential to contribute to diversity within the Board of Directors. Given that diversity is part of determining the overall balance, which includes gender, the Board of Directors has not adopted a gender specific policy target.

The Corporate Governance and Nominating Committee recognizes the value of diversity. Currently, the Board of Directors is comprised of male directors. The Board of Directors does not follow a formal process for proposing female nominees for Board of Director vacancies. Rather the Board of Directors focuses on the qualification and professional or business experience of each individual nominee.

Consistent with the Corporation's approach to diversity at the Board of Director level, the Corporation's hiring practices include consideration of diversity across a number of areas, including gender. None of the current executive officer positions of the Corporation are held by women. The Corporation does not have a target number of women executive officers. Given the small size of its executive team, the Corporation believes that implementing targets would not be appropriate. However, in its hiring practices, the Corporation considers the level of representation of women in executive officer positions.

#### APPOINTMENT AND REMUNERATION OF AUDITORS

Unless such authority is withheld, the persons named in the enclosed instrument of proxy intend to vote for the re-appointment of BDO Canada LLP of Toronto, Ontario, as auditors of the Corporation to hold office until the next annual meeting of shareholders and to authorize the directors to fix their remuneration. BDO Canada LLP were first appointed auditors of the Corporation on December 13, 2010.

## CONFIRM AND APPROVE THE CORPORATION'S STOCK OPTION PLAN

#### Approval of the Stock Option Plan

The Corporation's stock option plan (the 'Stock Option Plan') was last approved at 2015 annual and special meeting of Shareholders on June 9, 2015.

Shareholders will be asked to vote on a resolution to approve the Stock Option Plan at the Meeting (the **Stock Option Plan Resolution**"). A copy of the complete Stock Option Plan is attached as Schedule "B" to this Circular, with blacklines highlighting all of the amendments to the version of the Stock Option Plan that was last approved by Shareholders. The following is a summary of the Stock Option Plan, which is qualified in its entirety by reference to the text of the Stock Option Plan. All capitalized terms used in this section under the heading, "*Approval of the Stock Option Plan*", that are not specifically defined herein shall have the meanings ascribed to them in the Stock Option Plan.

## Terms of the Plan

Directors, officers and employees of the Corporation, as well as persons or companies engaged by the Corporation to provide services on a continuous basis for an initial, renewable or extended period of twelve months or more (and may include persons or companies such as consulting researchers, doctors and other consultants), are eligible to be granted options under the Stock Option Plan even if they are not full time employees of the Corporation. The purpose of the Stock Option Plan is to advance the interests of the Corporation by closely aligning the participants' personal interests with those of the Corporation's shareholders generally.

Options granted under the Stock Option Plan are granted at the discretion of the Board of Directors and are typically granted in such numbers as reflect the level of responsibility and participation of the particular optionee as determined over the course of the year. The terms of the plan provide that the aggregate number of Common Shares issuable thereunder (and under any other employee stock option plans or other share compensation arrangements) cannot, at the time of the option grant, exceed 10% of the total number of Common Shares issued and outstanding. The aggregate number of Common Shares issued to Insiders, within any one year period, and issuable to Insiders, at any time, under the Stock Option Plan and any other security-based compensation arrangement of the Corporation may not exceed 10% of the total number of Common Shares issued and outstanding.

The aggregate number of Common Shares that may be reserved for issuance to any one participant under the plan or under any other plan of the corporation may not exceed 5% of the total number of Common Shares issued and outstanding (calculated on a non-diluted basis) in any 12-month period.

The price at which Common Shares may be issued upon exercise of options granted under the plan cannot be lower than the volume weighted average trading price of the Common Shares on the TSX over the period of five days immediately preceding the date of the grant. Options issued under the plan may be exercised during a period determined by the Board, which shall not exceed ten years. In addition, notwithstanding the expiration date applicable to any option, if an option would otherwise expire during or immediately after a Blackout Period (as defined in the plan), then the expiration date of such option shall be the 10th business day following the expiration of the Blackout Period, provided that in no event shall the period during which said Option is exercisable be extended beyond 10 years from the date such option is granted to the optionee. Options granted under the plan are subject to immediate termination upon the dismissal of an employee with cause. If an optione ceases to hold any position as an optionee, by reason of retirement, resignation, or termination other than for cause, the vested options terminate the earlier of the normal expiry date of the option of 90 days from cessation or such longer period following cessation as the Board of Directors shall determine, provided that in no case may an Option expire any later than the normal expiry date. Under the plan, in the event of death or disability of the optionee, his or her options may be exercised during the period of one year following the date to the extent the options were exerciseable on the date of such event. The options vest over a period determined by the Board of Directors. The options are non-transferable and non-assignable unless permitted by the Board or unless such transfers are to Eligible Assignees (as defined in the plan). There is no agreement under which financial assistance will be provided by the Corporation to facilitate the purchase of shares under the plan.

The Board has the discretion to make amendments to the Stock Option Plan and any options granted thereunder which it may deem necessary, without having to obtain shareholder approval. Such changes include, without limitation:

- (a) Minor changes of a "housekeeping nature";
- (b) Amending the options under the plan, including with respect to the option period (provided that the period during which an Option is exercisable does not exceed ten years from the date the Option is granted and that such Option is not held by an Insider), vesting period, exercise method and frequency, subscription price (provided that such option is not held by an Insider), and method of determining the subscription price, assignability and effect of termination of an optionee's employment or cessation of the optionee's directorship;
- (c) Changing the class of optionees eligible to participate under the plan;
- (d) accelerating vesting or extending the expiration date of any Option (provided that such option is not held by an Insider), and where such option is held by an Insider in such case, shareholder approval shall be obtained in connection with the extension;
- (e) changing the terms and conditions of any financial assistance which may be provided by the Corporation to optionees to facilitate the purchase of common shares under the plan; and
- (f) adding a cashless exercise feature, payable in cash or securities, which provides for a full deduction of the number of underlying common shares from the plan reserve.

Shareholder approval will be required in the case of: (i) any amendment to the amendment provisions of the plan; (ii) any increase in the maximum number of Common Shares issuable under the plan; and (iii) any reduction in the exercise price or extension of the option period benefiting an Insider; and (iv) any amendment to remove or to exceed the Insider Participation Limit (as defined in the plan), in addition to such other matters that may require shareholder approval under the rules and policies of the TSX.

The Stock Option Plan permits the Board of Directors to suspend or terminate the plan, as well as to amend or revise the terms of the plan, subject to any applicable regulatory approval, provided that no such amendment or revisions shall alter the terms of any options theretofore granted under the plan.

## **Outstanding Stock Options Available for Issuance**

The following table summarizes, as of May 11, 2018, the number of stock options that have been exercised under the Stock Option Plan since its inception, the number of stock options outstanding as of May 11, 2018, and the number of stock options remaining available for grant as of May 11, 2018.

| Stock Options                                                 | Number     | Percentage of Currently<br>Outstanding Common Shares |
|---------------------------------------------------------------|------------|------------------------------------------------------|
| Stock options exercised, expired or cancelled since inception | 6,526,217  | 2%                                                   |
| Stock options outstanding                                     | 25,917,130 | 6%                                                   |
| Stock options available for grant                             | 16,071,701 | 4%                                                   |

The following table summarizes the burn rate (being the number of options granted under the Stock Option Plan during the applicable fiscal year divided by the weighted average number of Common Shares outstanding for the applicable fiscal year) in respect of the Stock Option Plan for the past three years:

| Fiscal Year | Burn Rate |
|-------------|-----------|
| 2017        | 5%        |
| 2016        | 3%        |
| 2015        | 1%        |

#### Resolution for Approval of the Plan

The Board recommends that the shareholders vote FOR the following resolution ratifying, confirming and approving the Stock Option Plan.

# "RESOLVED THAT:

- 1. the stock option plan of the Corporation (the "Stock Option Plan"), as amended, be and the same is hereby ratified, confirmed and approved, subject to such changes as may be required to be made in order to comply with the requirements of the TSX;
- 2. all options outstanding under the Stock Option Plan or any previous form of stock option plan shall remain valid and outstanding and be governed by the terms of the Stock Option Plan;
- 3. all unallocated options under the Stock Option Plan are approved for allocation and granting in accordance with the plan;
- 4. notwithstanding the approval of the shareholders of the Corporation as herein provided the Board of Directors of the Corporation, may, in its sole discretion, at any time suspend or terminate the Stock Option Plan or revoke this resolution before it is acted upon, without further approval of the shareholders of the Corporation; and
- 5. any one director or officer of the Corporation be and is hereby authorized and directed, for and on behalf of the Corporation, to execute and deliver or file such documents and instruments and to do all such other acts and things as are required or as such director or officer, in such director's or officer's sole discretion, may deem necessary to give full effect to or carry out the provisions of the above resolution."

## Unless such authority is withheld, the persons named in the enclosed instrument of proxy intend to vote for the ratification, confirmation and approval of the Plan.

## SHARE CONSOLIDATION

Background

At the Corporation's June 15, 2017 annual and special meeting, Shareholders approved a special resolution authorizing an amendment to the Corporation's articles to consolidate the issued and outstanding common shares (the "2017 Share Consolidation Resolution"). The 2017 Share Consolidation Resolution was put to Shareholders because the Board of Directors believed that, in anticipation of a listing to a recognized United States based stock exchange (a "US Exchange"), it was in the best interests of the Corporation to consolidate the issued and outstanding Common Shares of the Corporation based on a ratio of one post-consolidation common share for each 5 to 30 outstanding pre-consolidation Common Shares (the "Share Consolidation"), with the precise ratio to be determined by the Board of Directors in its sole discretion.

The 2017 Share Consolidation Resolution gave the Board of Directors discretion to determine when the Share Consolidation would be implemented, if at all. The 2017 Share Consolidation Resolution further provided that if the Board of Directors did not implement the Share Consolidation prior to the 2018 annual meeting of shareholders (the "Lapse Date"), the authority granted by the 2017 Share Consolidation Resolution would lapse and be of no further force or effect.

The Corporation continues to explore its eligibility for the listing of its Common Shares on a US Exchange (the **US Listing**"). The Corporation expects to proceed with a Share Consolidation only if and when the Corporation receives conditional approval for a US Listing ("**US Listing Approval**") and it is satisfied that it is able to and desires to satisfy any conditions to such approval. To date, the Corporation has not received approval for a US Listing. If the Lapse Date occurs prior to a Share Consolidation being implemented, the Corporation seeks authorization from Shareholders to effect the Share Consolidation and proceed with the US Listing after the Lapse Date where US Listing Approval is granted. The Board of Directors has authorized a Share Consolidation on a 30:1 ratio provided that such authorization is conditional upon receipt of US Listing Approval. Implicit in the board's approval is the Corporation's ability, and willingness, to satisfy any conditions to the US Listing Approval.

Accordingly, the Board of Directors has determined that it is in the best interests of the Corporation to again seek Shareholder approval for a special resolution authorizing a Share Consolidation on the same terms as a consolidation of common shares was approved by virtue of the 2017 Share Consolidation Resolution (the "2018 Share Consolidation Resolution").

## The Share Consolidation

If the proposed Share Consolidation is implemented, the number of Common Shares issued and outstanding will be reduced from approximately 419,888,311 Common Shares (as of May 10, 2018) to between approximately 13,996,277 (in the event of a 30 to 1 consolidation) and 83,997,662 (in the event of a 5 to 1 consolidation) Common Shares, depending on the ratio selected by the Corporation's Board of Directors.

The effect of the proposed Share Consolidation on the Corporation's outstanding securities exchangeable or exercisable for Common Shares is set out in the table below.

| Type of Security                                                          | Pre-Share Consolidation | Post-Share C                               | onsolidation                                |
|---------------------------------------------------------------------------|-------------------------|--------------------------------------------|---------------------------------------------|
|                                                                           | (#)                     | Based on 5:1 Share<br>Consolidation<br>(#) | Based on 30:1 Share<br>Consolidation<br>(#) |
| Warrants                                                                  |                         |                                            |                                             |
| Warrants issued<br>November 16, 2015 and<br>expiring November 16,<br>2020 | 7,012,195               | 1,402,439                                  | 233,740                                     |

| Type of Security                                                                                    | Pre-Share Consolidation | Post-Share Cons                            | solidation                                  |
|-----------------------------------------------------------------------------------------------------|-------------------------|--------------------------------------------|---------------------------------------------|
|                                                                                                     | (#)                     | Based on 5:1 Share<br>Consolidation<br>(#) | Based on 30:1 Share<br>Consolidation<br>(#) |
| Warrants issued February<br>12, 2016 and February 23,<br>2016 and expiring<br>February 12, 2021     | 13,347,607              | 2,669,521                                  | 444,920                                     |
| Warrants issued March<br>31, 2016 and April 14,<br>2016 and expiring March<br>31, 2021              | 17,313,181              | 3,462,636                                  | 577,106                                     |
| Warrants issued<br>September 20, 2016 and<br>October 27, 2016 and<br>expiring September 20,<br>2021 | 19,113,333              | 3,822,667                                  | 637,111                                     |
| Warrants issued March<br>16, 2017 and expiring<br>March 16, 2019                                    | 4,074,708               | 814,942                                    | 135,824                                     |
| Warrants issued March<br>16, 2017 and expiring<br>March 16, 2021                                    | 10,657,600              | 2,131,520                                  | 355,253                                     |
| Warrants issued June 29,<br>2017 and July 21, 2017<br>expiring June 29, 2022                        | 13,391,305              | 2,678,261                                  | 446,377                                     |
| Warrants issued August<br>24, 2017 and expiring<br>August 24, 2022                                  | 16,892,000              | 3,378,400                                  | 563,067                                     |
| Warrants issued<br>December 5, 2017 and<br>expiring December 5,<br>2022                             | 46,000,000              | 9,200,000                                  | 1,533,333                                   |
| Warrants issued April 10,<br>2018 and May 10, 2018,<br>and expiring April 10,<br>2023               | 38,866,627              | 7,773,325                                  | 1,295,554                                   |
| Stock Options                                                                                       | 25,917,130              | 5,183,426                                  | 863,904                                     |
| Broker Compensation<br>Warrants                                                                     | 8,765,978               | 1,753,196                                  | 292,199                                     |

No fractional Common Shares will be issued in connection with the Share Consolidation and, in the event that a Shareholder would otherwise be entitled to receive a fractional common share, upon such Share Consolidation, the number of Common Shares to be received by such Shareholder will be rounded up or down to the nearest whole number. No consideration will be paid or issued in respect of fractional common shares that are cancelled as a result of the Share Consolidation.

Upon the Share Consolidation becoming effective, the number of Common Shares issuable upon the due exercise of outstanding Warrants of the Corporation and the exercise price in respect thereof shall be adjusted in accordance with the terms of such Warrants set forth in the certificate and any warrant indenture governing the Warrants. No further action by the holders of Warrants shall be required in order to give effect to these adjustments.

The Share Consolidation is subject to regulatory approval, including approval of the TSX, at the time of the proposed consolidation. As a condition to the approval of a consolidation of shares listed for trading on the TSX, the TSX requires, among other things, that the Corporation must meet, post-consolidation, the continued listing requirements contained in Part VII of the TSX Company Manual. Specifically, the Corporation's securities may be delisted if (a) the market value of listed issued securities is less than \$3,000,000 over any period of 30 consecutive trading days; or (b) the market value of the Corporation's freely-tradable, publicly held securities is less than \$2,000,000 over any period of 30 consecutive trading days; or (c) the number of freely-tradable, publicly held securities is less than 500,000; or (d) the number of public security holders, each holding a board lot or more, is less than 150.

If the 2018 Share Consolidation Resolution is approved and if the Share Consolidation has not already been implemented pursuant to the 2017 Share Consolidation Resolution, the Board of Directors will determine when and if the articles of amendment giving effect to the Share Consolidation would be filed, and shall determine the share consolidation ratio. Other than the completion and return of a letter of transmittal and any other requirements pursuant to the rules of the Toronto Stock Exchange and the rules of any US Exchange upon which the Common Shares may be listed, no further action on the part of shareholders is expected to be required in order for the Board of Directors to implement the Share Consolidation.

Notwithstanding approval of the proposed Share Consolidation by Shareholders, the Board of Directors, in its sole discretion, may delay implementation of the Share Consolidation or revoke the 2018 Share Consolidation Resolution and abandon the Share Consolidation without further approval or action by or prior notice to Shareholders.

# If the Board of Directors does not implement the Share Consolidation prior to the next annual meeting of shareholders, the authority granted by the special resolution to implement the Share Consolidation on these terms will lapse and be of no further force or effect.

## **Reasons for the Share Consolidation**

The Board of Directors believes that it is in the best interests of the Corporation and the Corporation's shareholders to reduce the number of outstanding Common Shares by way of the Share Consolidation, because it may be required as a condition to listing the Corporation's securities on a US Exchange and also position the Common Shares in the best possible manner to attract investor interest from the United States, Canada and other jurisdictions.

## Listing on US Exchange

The Corporation is in the process of applying to list the Common Shares on a US Exchange, and may be required to effect a consolidation of the Common Shares to achieve the minimum share trading price required to satisfy the listing requirements of a foreign exchange. The trading price of the Common Shares on the TSX is currently below the minimum price required by the US Exchange and the proposed Share Consolidation, if implemented, may allow the Corporation to achieve such minimum listing price. There is no assurance that a US Listing will be achieved.

The Board of Directors of the Corporation believes that shareholder approval of a range of potential consolidation ratios (rather than a single consolidation ratio) provides the Board of Directors with flexibility to achieve the desired results of the Share Consolidation, being an increase in the trading price of the Common Shares so as to meet the minimum listing price of certain foreign stock exchanges.

There can be no assurances whatsoever that any increase in the market price per common share will result from the proposed Share Consolidation and there is no assurance whatsoever that the Corporation will submit an application for listing on any foreign stock exchange, or if an application is made, that the Corporation will be successful in achieving such a listing if the proposed Share Consolidation is implemented.

## Share Certificates

If the proposed Share Consolidation is approved by the shareholders and all regulatory requirements are complied with, including the Corporation obtaining approval of the TSX, and implemented by the Board of Directors no later than one year from the date of approval of the Share Consolidation by the shareholders, following the announcement by the Corporation of the effective date of the Share Consolidation, registered Shareholders will be sent a transmittal letter by the Corporation's transfer agent, Computershare Trust Company of Canada, containing instructions on how to exchange their share certificates representing pre-consolidation Common Shares for new share certificates representing post-consolidation Common Shares. Non-registered shareholders holding their Common Shares through a bank, broker or other nominee should note that such banks, brokers or other nominees may have different procedures for processing the Share Consolidation than those that will be put in place by the Corporation for the registered shareholders. If you hold your Common Shares with such a bank, broker or other nominee and if you have any questions in this regard, you are encouraged to contact your nominee.

# RISK FACTORS ASSOCIATED WITH THE SHARE CONSOLIDATION

## Decline in Market Capitalization

There are numerous factors and contingencies that could affect the prices of pre-consolidation Common Shares and the post-consolidation Common Shares, including the Corporation's reported financial results in future periods, and general economic, geopolitical, stock market and industry conditions. Accordingly, the market price of the post-consolidation Common Shares may not be sustainable at the direct arithmetic result of the Share Consolidation, and may be lower. If the market price of the post-consolidation Common Shares is lower than it was before the Share Consolidation on an arithmetic equivalent basis, the Corporation's total market capitalization (the aggregate value of all Common Shares at the then market price) after the Share Consolidation may be lower than before the Share Consolidation.

## Potential for Adverse Effect on the Liquidity of the Common Shares

If the Share Consolidation is implemented and the market price of the post-consolidation Common Shares declines, the percentage decline may be greater than would occur in the absence of the Share Consolidation. The market price of the post-consolidation Common Shares will, however, also be based on the Corporation's performance and other factors, which are unrelated to the number of Common Shares outstanding. Furthermore, the liquidity of the post-consolidation Common Shares could be adversely affected by the reduced number of consolidated Common Shares that would be outstanding after the Share Consolidation.

## No Fractional Shares to be Issued

No fractional consolidated Common Shares will be issued in connection with the Share Consolidation and, in the event that a Shareholder would otherwise be entitled to receive a fractional consolidated share upon the Share Consolidation, such fraction will be rounded up or down to the nearest whole number.

## Effects of the Share Consolidation on the Common Shares

The Consolidation Ratio will be the same for all Common Shares. Except for any variances attributable to the rounding up and down of fractional shares, the change in the number of issued and outstanding Common Shares that will result from the Share Consolidation will cause no change in the capital attributable to the Common Shares and will not materially affect any shareholder's percentage ownership in the Corporation, even though such ownership will be represented by a smaller number of consolidated Common Shares.

The Share Consolidation will not materially affect any shareholder's proportionate voting rights. Each consolidated common share outstanding after the Share Consolidation will have the same rights and privileges as the existing Common Shares.

The implementation of the Share Consolidation would not affect the total shareholders' equity of the Corporation or any components of Shareholders' equity as reflected on the Corporation's financial statements except to change the number of issued and outstanding Common Shares to reflect the Share Consolidation.

## Procedure for Implementing the Share Consolidation

If the 2018 Share Consolidation Resolution is approved by the shareholders and the Board of Directors decides to implement the Share Consolidation, the Corporation will file articles of amendment with the Director under the *Business Corporations Act* (Ontario) ("**OBCA**") in the form prescribed by the OBCA to amend the Corporation's articles. The Share Consolidation will become effective as specified in the articles of amendment and the certificate of amendment issued by the Director under the OBCA.

# No Dissent Rights

Under the OBCA, shareholders do not have dissent and appraisal rights with respect to the proposed Share Consolidation.

## Tax Considerations

SHAREHOLDERS SHOULD CONSULT THEIR TAX ADVISORS REGARDING THE TAX CONSEQUENCES OF THE SHARE CONSOLIDATION TO THEM, INCLUDING THE EFFECTS OF ANY CANADIAN OR U.S. FEDERAL, STATE AND LOCAL, FOREIGN AND OTHER TAX LAWS.

## 2018 Share Consolidation Resolution

Shareholders will be asked to consider and, if thought advisable, to authorize and approve the 2018 Share Consolidation Resolution. Pursuant to the provisions of the OBCA, in order to be effective, the 2018 Share Consolidation Resolution must be approved by 66 2/3% of the votes cast in respect thereof by shareholders present in person or by proxy at the Meeting.

The following is the text of the 2018 Share Consolidation Resolution which will be put forward for approval by the Shareholders at the Meeting:

# "BE IT RESOLVED AS A SPECIAL RESOLUTION THAT:

- Pursuant to section 168(1)(h) of the Business Corporations Act (Ontario) (the "OBCA"), the Articles of Titan Medical Inc. (the "Corporation") be amended to consolidate all of the issued and outstanding common shares of the Corporation (the "Common Shares") on the basis of a ratio of one (1) post-consolidation Common Share for a number of outstanding pre-consolidation Common Shares between 5 and 30, with such ratio to be determined by the Board of Directors in its sole discretion. Any resulting fractional Common Shares shall be either rounded up or down to the nearest whole Common Share;
- 2. The Board of Directors of the Corporation be and it is hereby authorized to revoke, without further approval of the Shareholders, this special resolution at any time prior to the completion thereof, notwithstanding the approval by the Shareholders of same, if determined, in the Board of Directors' sole discretion to be in the best interest of the Corporation; and

3. Any director or officer of the Corporation be and is hereby authorized to do all such further acts and things and execute all such documents and instruments as may be necessary or desirable to give effect to the matters contemplated by this special resolution, including but not limited to, the filing of articles of amendment under the OBCA."

# Unless otherwise directed, the persons named in the enclosed form of proxy intend to vote at the Meeting IN FAVOUR of the 2018 Share Consolidation Resolution.

## **Recommendation of the Board**

The Board of Directors believes that the proposed Share Consolidation of the Common Shares is in the best interests of the Corporation and its shareholders and unanimously recommends that shareholders vote IN FAVOUR of the 2018 Share Consolidation Resolution.

# OTHER ITEMS OF BUSINESS

Management is not aware of any other matters which are to come before the Meeting other than the matters referred to in the Notice of Meeting. However, if any matters other than those referred to herein should be presented at the Meeting, the persons named in the enclosed proxy are authorized to vote the shares represented by the proxy in accordance with their best judgement.

# INTEREST OF CERTAIN PERSONS OR COMPANIES IN MATTERS TO BE ACTED UPON

Other than as disclosed elsewhere in this Circular, no director or executive officer of the Company, nor any associate or affiliate of any one of them, has any material interest, direct or indirect, by way of beneficial ownership of securities or otherwise, in any matter to be acted on at the Meeting.

## ADDITIONAL INFORMATION

Financial information for the Corporation is provided in the Corporation's comparative annual financial statements and management's discussion and analysis for the most recently completed financial year. This information and additional information relating to the Corporation can be found on the SEDAR website at *www.sedar.com* and on the Corporation's website at *www.titanmedicalinc.com*. Copies of the above and other disclosure documents of the Corporation may also be obtained from the Secretary of the Corporation upon request.

#### DIRECTORS' APPROVAL

The contents and the distribution of this Circular have been approved by the Board of Directors.

DATED the 11<sup>th</sup> day of May, 2018.

(signed) David J. McNally

President and Chief Executive Officer Titan Medical Inc.

## SCHEDULE "A"

## **BOARD OF DIRECTORS MANDATE**

## Introduction

The board of directors (the '**Board**') of Titan Medical Inc. (the '**Company**') is elected by the shareholders of the Company and is responsible for the stewardship of the Company. The purpose of this mandate is to describe the principal duties and responsibilities of the Board, as well as some of the policies and procedures that apply to the Board in discharging its duties and responsibilities.

#### **Chair of the Board of Directors**

The Chair of the Board (the "Chair") will be appointed by the Board, after considering the recommendation of the Company's Corporate Governance and Nomination Committee, for such term as the Board may determine.

#### Independence

The Board will be comprised of a majority of independent directors, as established by applicable laws and the rules of any stock exchanges upon which the Company's securities are listed, including section 3.1 of National Policy 58-201 – *Corporate Governance Guidelines*.

Where the Chair is not independent, the independent directors may select one of their number to be appointed lead director of the Board for such term as the independent directors may determine. The Chair or lead director, if appointed, will chair regular meetings of the independent directors and assume other responsibilities that the independent directors as a whole have designated.

## Role and Responsibilities of the Board

The role of the Board is to act honestly and in good faith and act in the best interest of the Company, and each member of the Board must exercise the care, diligence and skill that a reasonably prudent person would exercise in comparable circumstances. The Board is ultimately accountable and responsible for providing independent, effective leadership in supervising the management of the business and affairs of the Company.

The responsibilities of the Board include:

- adopting a strategic planning process;
- risk identification and ensuring that procedures are in place for the management of those risks;
- the Company's internal control and management information systems;
- review and approve annual operating plans and budgets;
- corporate social responsibility, ethics and integrity;
- review the integrity of the Chief Executive Officer (CEO) and the other executive officers and ensure that the CEO and other executive officers create a culture of integrity;
- succession planning, including the appointment, training and supervision of management;
- delegations and general approval guidelines for management;

- monitoring financial reporting and management;
- monitoring internal control and management information systems;
- corporate disclosure and communications including the adoption of a Corporate Disclosure Policy, which shall serve as the communication policy for the Company;
- adopting measures for receiving feedback from stakeholders;
- adopting key corporate policies designed to ensure that the Company, its directors, officers and employees comply with all applicable laws, rules and
  regulations and conduct their business ethically and with honesty and integrity;
- developing the Company's approach to governance; and
- such other items as required by law including the Business Corporations Act (Ontario).

Meetings of the Board will be held at least quarterly, with additional meetings to be held depending on the state of the Company's affairs and in light of opportunities or risks which the Company faces. After each meeting of the Board, the directors will meet without management being present. In addition, separate meetings of the independent directors of the Board may be held at which members of management and the non-independent directors are not present.

The Board will delegate responsibility for the day-to-day management of the Company's business and affairs to the Company's senior officers and will supervise such senior officers appropriately.

The Board may delegate certain matters it is responsible for to Board committees, presently consisting of the Audit Committee, Corporate Governance and Nominating Committee and Compensation Committee.

## Strategic Planning Process and Risk Management

The Board will adopt a strategic planning process to establish objectives and goals for the Company's business and will review, approve and modify as appropriate the strategies proposed by senior management to achieve such objectives and goals. The Board will review and approve, at least on an annual basis, a strategic plan which takes into account, among other things, the opportunities and risks of the Company's business and affairs.

The Board, in conjunction with management, will identify the principal risks of the Company's business and oversee management's implementation of appropriate systems to effectively monitor, manage and mitigate the impact of such risks.

# Succession Planning, Appointment and Supervision of Management

The Board will approve the succession plan for the Company, including the selection, appointment, supervision and evaluation of the CEO or any person acting in such capacity, and the other senior officers of the Company, and will also approve the compensation of the CEO or any person acting in such capacity, and the other senior officers of the Company.

In furtherance of the succession plan, the Board shall monitor senior management and oversee their training.

# **Delegations and Approval Authorities**

The Board will delegate to the CEO, or any person acting in such capacity, senior management authority over the day-to-day management of the business and affairs of the Company.

## **Corporate Disclosure and Communications**

The Board will seek to ensure that all corporate disclosure complies with all applicable laws, rules and regulations and the rules and regulations of the stock exchanges upon which the Company's securities are listed and the Corporate Disclosure Policy. In addition, the Board will adopt procedures that seek to ensure the security holders have a direct contact to a designated individual in order to provide them with corporate information.

# **Corporate Policies**

The Board will adopt and monitor compliance of the policies and procedures, which are designed to ensure that the Company, its directors, officers and employees comply with all applicable laws, rules and regulations and conduct the Company's business ethically and with honesty and integrity. Principal policies consist of:

- Code of Conduct;
- Insider Trading Policy;
- Whistleblower Policy

## **Review of Mandate**

The Corporate Governance and Nominating Committee will annually review and assess the adequacy of this mandate and recommend any proposed changes to the Board for consideration. The Board may, from time to time, amend this Mandate.

The Board may, from time to time, permit departures from the terms of this Mandate, either prospectively or retrospectively. The terms of this Mandate are not intended to give rise to civil liability on the part of the Company or its directors or officers to shareholders, security holders, customers, suppliers, competitors, employees or other persons, or to any other liability whatsoever on their part.

Effective: February 10, 2015

# SCHEDULE "B"

# STOCK OPTION PLAN

[See Attached]

#### TITAN MEDICAL INC.

## STOCK OPTION PLAN

# (Amended and Restated effective as of June 9, 2015 March 14, 2018)

# 1. The Plan and Definitions

A stock option plan (this "Plan"), pursuant to which options to purchase common shares in the capital of Titan Medical Inc. (the **Corporation**") may be granted to the directors, officers and employees of the Corporation and to Service Providers retained by the Corporation, is hereby established on the terms and conditions set forth herein.

The trading price of the Common Shares may vary from time to time and the advantage conferred by the granting of an Option may not be guaranteed. Accordingly, each person who has been granted an Option must decide, in accordance with his own estimate and financial situation, if it is appropriate to exercise any Option granted under this Plan. The decision to exercise or to not exercise an Option shall not affect in any way the status of the option holder within the Corporation or its subsidiaries.

The following capitalized terms used herein shall have the meanings ascribed thereto as follows:

- "Black Out Period" means the period during which the Corporation has imposed trading restrictions on its insiders and certain other persons pursuant to its insider trading and disclosure policies;
- (ii) "Board" means the Board of Directors of the Corporation;
- (iii) "control" and "controlled" shall have the meanings ascribed thereto in the Securities Act (Ontario);
- (iv) "Common Shares" means the common shares in the capital of the Corporation;
- (v) "Disability" means any disability with respect to a Participant which the Board, in its sole and unfettered discretion, considers likely to prevent permanently the Participant from:
  - (a) being employed or engaged by the Corporation, its subsidiaries or another employer, in a position the same as or similar to that in which he was last employed or engaged by the Corporation or its subsidiaries; or
  - (b) acting as a director or officer of the Corporation or its subsidiaries;
- (vi) "Eligible Assignee" means, in respect of a Participant, that person's spouse, minor children or minor grandchildren, Eligible Retirement Plan, Eligible Corporation or Eligible Family Trust;
- (vii) "Eligible Corporation" means, in respect of a Participant, a corporation controlled by that person and all the shares of which are held by that person and/or Eligible Assignces of that person;
- (viii) "Eligible Family Trust" means, in respect of a Participant, a trust of which the Eligible Person is a trustee and of which all beneficiaries are that person and/or Eligible Assignees;



- (ix) "Eligible Retirement Plan" means, in respect of a Participant in Canada, a registered retirement savings plan or registered retirement income fund established by that person or under which the beneficiary or annuitant is that person, and in respect of a Participant in the United States, a 401(k) plan or individual retirement account established by that person or under which the beneficiary or annuitant is that person;
- (x) "Exchange" means the Toronto Stock Exchange and/or such other stock exchange upon which the Common Shares may become listed;
- (xi) "Insider" means a "reporting insider" (as such term is defined in National Instrument 55-104 -

Insider Reporting Requirements and Exemptions) and "associates" and "affiliates" thereof (as such terms are defined in the rules of the Exchange or where they are not so defined, as such terms are defined in the Securities Act (Ontario));

- (xii) "Insider Participation Limit" means the number of Common Shares:
  - (a) issued to Insiders, within any one year period, and
  - (b) issuable to Insiders, at any time,

under this Plan, and when combined with all of the Corporation's other security based compensation arrangements (if any), do not exceed 10% of the Corporation's total issued and outstanding Common Shares.

- (xiii) "Option Period" shall mean the period during which an Option may be exercised;
- (xiv) "Options" shall mean options to purchase Common Shares granted under this Plan;
- (xv) "**Participant**" shall have the meaning ascribed to in Section 1(a)6(a);
- (xvi) "Service Providers" persons or companies engaged by the Corporation to provide services on a continuous basis for an initial, renewable or extended period of twelve months or more; and
- (xvii) "VWAP" means the volume weighted average trading price of the Common Shares on the Exchange, calculated by dividing the total value by the total volume of Common Shares traded for the relevant period.

## 2. Purpose

The purpose of this Plan is to advance the interests of the Corporation by encouraging the directors, officers and employees of the Corporation and Service Providers retained by the Corporation to acquire Shares, thereby: (i) increasing the proprietary interests of such persons in the Corporation; (ii) aligning the interests of such persons with the interests of the Corporation's shareholders generally; (iii) encouraging such persons to remain associated with the Corporation and (iv) furnishing such persons with an additional incentive in their efforts on behalf of the Corporation.

# 3. Administration

- (a) This Plan shall be administered by the Board.
- (b) Subject to the terms and conditions set forth herein, the Board is authorized to provide for the granting, exercise and method of exercise of Options, all on such terms (which may vary between Options granted from time to time) as it shall determine. In addition, the Board shall have the authority to: (i) construe and interpret this Plan and all option agreements entered into hereunder; (ii) prescribe, amend and rescind rules and regulations relating to this Plan and (iii) make all other determinations necessary or advisable for the administration of this Plan. All determinations and interpretations made by the Board shall be binding on all Participants (as hereinafter defined) and on their legal, personal representatives and beneficiaries and permitted assignees hereunder.

- (c) The Board's authority to make amendments to this Plan without shareholder approval shall be in accordance with paragraph 18 below.
- (d) Notwithstanding the foregoing or any other provision contained herein, the Board shall have the right to delegate the administration and operation of this Plan, in whole or in part, to a committee of the Board or to the Chief Executive Officer or any other officer of the Corporation. Whenever used herein, the term "Board" shall be deemed to include any committee or officer to which the Board has, fully or partially, delegated responsibility and/or authority relating to the Plan or the administration and operation of this Plan pursuant to this Section 3.
- (e) Options shall be evidenced by (i) an agreement, signed on behalf of the Corporation and by the person to whom an Option is granted, which agreement shall be in such form as the Board shall approve, or (ii) a written notice or other instrument, signed by the Corporation, setting forth the material attributes of the Options.
- (f) The Board shall not grant Options to residents of the United States unless such Options are registered under the United States Securities Act of 1933, *as amended*, (the "**U.S. Securities Act**") or are issued in compliance with an available exemption from the registration requirements of the U.S. Securities Act.

# 4. Shares Subject to Plan

- (a) Subject to Section 15 below, the securities that may be acquired by Participants upon the exercise of Options shall be deemed to be fully authorized and issued Common Shares. Whenever used herein, the term "Common Shares" shall be deemed to include any other securities that may be acquired by a Participant upon the exercise of an Option the terms of which have been modified in accordance with Section 15 below.
- (b) The aggregate number of Common Shares reserved for issuance under this Plan, or any other plan of the Corporation, shall not, at the time of the stock option grant, exceed ten percent (10%) of the total number of issued and outstanding Common Shares (calculated on a non-diluted basis) unless the Corporation receives the permission of the stock exchange or exchanges on which the Shares are then listed to exceed such limit.
- (c) If any Option granted under this Plan shall expire or terminate for any reason without having been exercised in full, any un-purchased Common Shares to which such Option relates shall be available for the purposes of the granting of Options under this Plan.

## 5. Maintenance of Sufficient Capital

The Corporation shall at all times during the term of this Plan ensure that the number of Common Shares it is authorized to issue shall be sufficient to satisfy the Corporation's obligations under all outstanding Options granted pursuant to this Plan.

## 3

# 6. Eligibility and Participation

- (a) The Board may, in its discretion, select any of the following persons to participate in this Plan and to receive Options under this Plan:
  - (i) directors of the Corporation;
  - (ii) officers of the Corporation;
  - (iii) employees of the Corporation; and
  - (iv) Service Providers;

(any such person having been selected for participation in this Plan by the Board is herein referred to as a 'Participant'').

(b) The Board may from time to time, in its discretion, grant an Option to any Participant, upon such terms, conditions and limitations as the Board may determine, including the terms, conditions and limitations set forth herein, provided that Options granted to any Participant shall be approved by the shareholders of the Corporation if the rules of any stock exchange on which the Shares are listed require such approval.

## 7. Exercise Price

The Board shall, at the time an Option is granted under this Plan, fix the exercise price at which Common Shares may be acquired upon the exercise of such Option provided that such exercise price may not be lower than the VWAP of the Common Shares on the Exchange over the period of five days immediately preceding the date of the grant. In addition, the exercise price of an Option must be paid in cash. Disinterested shareholder approval shall be obtained by the Corporation prior to any reduction to the exercise price if the affected Participant is an Insider.

# 8. Number of Optioned Shares

The number of Common Shares that may be acquired under an Option granted to a Participant shall be determined by the Board as at the time the Option is granted, provided that the aggregate number of Shares reserved for issuance to any one Participant under this Plan or any other plan of the Corporation, shall not exceed five percent (5%) of the total number of issued and outstanding Common Shares (calculated on a non-diluted basis) in any 12-month period.

This Plan limits the number of Options which may be granted to Insiders to the Insider Participation Limit except in circumstances where the Corporation has obtained disinterested shareholder approval for grants of Options to Participants who are Insiders where any such grant or grants would result in the Insider Participation Limited being exceeded.

## 9. Term

The Option Period shall be determined by the Board at the time that the Option is granted, subject to any vesting limitations which may be imposed by the Board in its sole and unfettered discretion at the time that such Option is granted and Sections 11, 12 and 16 below, provided that:

(a) no Option shall be exercisable for a period exceeding ten (10) years from the date that the Option is granted unless the Corporation receives the required approval of the stock exchange or exchanges on which the Common Shares are then listed and as specifically provided by the Board and as permitted under the rules of any stock exchange or exchanges on which the Shares are then listed;

- (b) no Option in respect of which shareholder approval is required under the rules of any stock exchange or exchanges on which the Common Shares are then listed shall be exercisable until such time as the Option has been approved by the shareholders of the Corporation;
- (c) the Board may, subject to the receipt of any necessary regulatory approvals, in its sole discretion, accelerate the time at which any Option may be exercised, in whole or in part; and
- (d) notwithstanding the expiration date applicable to any Option, if an Option would otherwise expire during a Black Out Period or during the period of ten business days immediately following the last day of a Black Out Period, the expiration date of such Option shall be the tenth business day following the expiration of the Black Out Period, provided that in no event shall the period during which said Option is exercisable be extended beyond 10 years from the date such Option is granted to the Participant.

# 10. Method of Exercise of Option

- (a) Except as set forth in Sections 11 and 12 below or as otherwise determined by the Board, no Option may be exercised unless the holder of such Option is, at the time the Option is exercised, a director, officer, employee or Service Provider of the Corporation or an Eligible Assignee.
- (b) Options that are otherwise exercisable in accordance with the terms thereof may be exercised in whole or in part from time to time.
- (c) Any Participant (or his legal, personal representative) or Eligible Assignee wishing to exercise an Option shall deliver to the Corporation, at its principal office in the City of Toronto, Ontario:
  - (i) a written notice expressing the intention of such Participant (or his legal, personal representative) or Eligible Assignee to exercise the Option and specifying the number of Common Shares in respect of which the Option is exercised; and
  - (ii) a cash payment, certified cheque or bank draft, representing the full purchase price of the Common Shares in respect of which the Option is exercised.
- (d) Upon the exercise of an Option as aforesaid, the Corporation shall use reasonable efforts to forthwith deliver, or cause the registrar and transfer agent of the Common Shares to deliver, to the relevant Participant (or his legal, personal representative) or to the order thereof, a certificate representing the aggregate number of fully paid and non-assessable Common Shares in respect of which the Option has been duly exercised.
- (e) No Option holder who is resident in the United States may exercise Options unless the Common Shares to be issued upon exercise are registered under the U.S. Securities Act or are issued in compliance with an available exemption from the registration requirements of the U.S. Securities Act.
- (f) The Corporation shall be entitled to take all steps necessary to ensure that sufficient funds are provided to the Corporation by the Participant or Eligible Assignee to enable the Corporation to satisfy all withholding tax and other source deduction requirements in respect of the exercise of an Option by the Participant or Eligible Assignee that are imposed by any applicable law, including:

5

- (i) deducting and withholding any amount from any payments made to the Participant or Eligible Assignee, whether hereunder or otherwise;
- (ii) requiring from the Participant or Eligible Assignee a cash payment, certified cheque or bank draft in the amount specified by the Corporation; and
- (iii) requiring that the Participant or Eligible Assignee enter into a same-day sale in respect of some or all of the Common Shares received on the exercise of an Option, with a portion of the sale proceeds being remitted directly to the Corporation.

## 11. Ceasing to be a Director, Officer, Employee or Service Provider

Unless the Board otherwise determines:

- (a) if a Participant is dismissed for cause as a director, officer or employee of, or Service Provider to, the Corporation or one of its subsidiaries, all unexercised Option rights of that Participant or such Participant's Eligible Assignee (where the Participant has assigned the Option to such Eligible Assignee) under this Plan shall immediately become terminated and shall lapse notwithstanding the original term of the Option granted to such Participant under this Plan; and
- (b) if any Participant shall cease to hold the position or positions of director, officer, employee or Service Provider of the Corporation (as the case may be) as a result of (i) retirement at the normal retirement age prescribed by the Corporation, if any; (ii) resignation; or (iii) termination other than for cause; such Participant or such Participant's Eligible Assignee (where the Participant has assigned the Option to such Eligible Assignee) shall have the right for a period to be determined by the Board not exceeding 90 days, or such longer period determined by the Board at its discretion in respect of a specific Option on a date after such Option is granted notwithstanding an earlier determination by the Board, from the date of the Participant ceasing to be a director, officer, employee or Service Provider to exercise his Options under this Plan with respect to all Common Shares issuable thereunder to the extent that the Options were exercisable on the date of such Participant ceasing to hold any such position with the Corporation, or until the normal expiry date of the Option, whichever is earlier. Upon the expiration of such period, all unexercised Option rights of that Participant and any Eligible Assignee thereof under this Plan shall immediately become terminated and shall lapse notwithstanding the original term of the Option granted to such Participant under this Plan.

For greater certainty, the termination of any Options held by the Participant or his Eligible Assignee, and the period during which the Participant or his Eligible Assignee may exercise any Options, shall be without regard to any notice period arising from the Participant's ceasing to hold the position or positions of director, officer, employee or Service Provider of the Corporation (as the case may be).

Neither the selection of any person as a Participant nor the granting of an Option to any Participant under this Plan shall: (i) confer upon such Participant any right to continue as a director, officer, employee or Service Provider of the Corporation, as the case may be; or (ii) be construed as a guarantee that the Participant will continue as a director, officer, employee or Service Provider of the Corporation, as the case may be.

## 12. Death or Disability of a Participant

In the event of the death of a Participant, any Option previously granted to him shall be exercisable until the end of the Option Period or until the expiration of 12 months after the date of death of such Participant, whichever is earlier, and then only:

6

- (a) by the person or persons to whom the Participant's rights under the Option shall pass by the Participant's will or applicable law; and
- (b) to the extent that he was entitled to exercise the Option as at the date of his death.

Notwithstanding Section 11, in the event of the Disability of a Participant, any Option previously granted to him shall be exercisable until the end of the Option Period or until the expiration of 12 months after the determination by the Board of the Disability, whichever is earlier.

# 13. Rights of Participants

No person entitled to exercise any Option granted under this Plan shall have any of the rights or privileges of a shareholder of the Corporation in respect of any Common Shares issuable upon exercise of such Option until such Common Shares have been paid for in full and issued to such person.

#### 14. Proceeds from Exercise of Options

The proceeds from any issuance of Common Shares upon the exercise of Options shall be added to the general funds of the Corporation and shall thereafter be used from time to time for such corporate purposes as the Board may determine and direct.

#### 15. Adjustments

- (a) The number of Common Shares subject to the Plan shall be increased or decreased proportionately in the event of the subdivision or consolidation of the outstanding Common Shares of the Corporation, and in any such event a corresponding adjustment shall be made to the number of Common Shares deliverable upon the exercise of any Option granted prior to such event without any change in the total price applicable to the unexercised portion of the Option, but with a corresponding adjustment in the price for each Common Share that may be acquired upon the exercise of the Option. In case the Corporation is reorganized or merged or consolidated or amalgamated with another corporation, appropriate provisions shall be made for the continuance of the Options outstanding under this Plan and to prevent any dilution or enlargement of the same.
- (b) Adjustments under this Section 15 shall be made by the Board, whose determination as to what adjustments shall be made, and the extent thereof, shall be final, binding and conclusive. No fractional Common Shares shall be issued upon the exercise of an Option following the making of any such adjustment.

#### 16. Change of Control

Notwithstanding any vesting restrictions otherwise applicable to the relevant Options, in the event of a sale by the Corporation of all or substantially all of its assets or in the event of a change of control of the Corporation, each Participant or his Eligible Assignee shall be entitled to exercise, in whole or in part, the Options granted to such Participant hereunder, either during the term of the Option or within 90 days after the date of the sale or change of control, whichever first occurs.

For the purpose of this Plan, "change of control of the Corporation" means and shall be deemed to have occurred upon:

(a) the acceptance by the holders of Common Shares of the Corporation, representing in the aggregate, more than 50 percent (50%) of all issued Common Shares of the Corporation, of any offer, whether by way of a takeover bid or otherwise, for all or any of the outstanding Common Shares of the Corporation; or

- (b) the acquisition, by whatever means, by a person (or two or more persons who, in such acquisition, have acted jointly or in concert or intend to exercise jointly or in concert any voting rights attaching to the Common Shares acquired), directly or indirectly, of beneficial ownership of such number of Common Shares or rights to Common Shares of the Corporation, which together with such person's then owned Common Shares and rights to Common Shares, if any, represent (assuming the full exercise of such rights to voting securities) more than fifty percent (50%) of the combined voting rights of the Corporation's then outstanding Common Shares; or
- (c) the entering into of any agreement by the Corporation to merge, consolidate, amalgamate, initiate an arrangement or be absorbed by or into another corporation; or
- (d) the passing of a resolution by the Board or shareholders of the Corporation to substantially liquidate the assets or wind-up the Corporation's business or significantly rearrange its affairs in one or more transactions or series of transactions or the commencement of proceedings for such a liquidation, winding-up or re-arrangement (except where such re-arrangement is part of a bona fide reorganization of the Corporation in circumstances where the business of the Corporation is continued and where the shareholdings remain substantially the same following the re-arrangement); or
- (e) individuals who were members of the Board immediately prior to a meeting of the shareholders of the Corporation involving a contest for or an item of business relating to the election of directors, not constituting a majority of the Board following such election.

# 17. Transferability

- (a) Subject to sub-section 17(b), all Options and all benefits, interests and rights accruing to any Participant (or such Participant's Eligible Assignee) in accordance with the terms and conditions of this Plan may only be exercised by the Participant (or such Participant's Eligible Assignee) during the lifetime of a Participant and shall be non-transferrable and non-assignable and may not be made subject to execution, attachment or similar process, save and except with the prior written permission of the Board, or in the event of the death of a Participant, by the person or persons to whom the Participant's rights under the Option pass by the Participant's will or applicable laws of descent and distribution.
- (b) Notwithstanding section 17(a) but subject to obtaining any necessary approvals in advance from the Corporation and from each Exchange on which the Common Shares are listed and which reserves the right to approve such assignments, a Participant may assign Options granted to him under the Plan to Eligible Assignees and Eligible Assignees may, in turn, assign such Options to the original Participant or to other Eligible Assignees of the original Participant. Notwithstanding any such assignment, (i) all Options granted under the Plan shall be deemed to be the Option of the original Participant for the purposes of applying the rules and policies of the Exchange on which the Common Shares are listed and (ii) the Corporation shall continue to treat the original Participant as the holder of the assignee. Options unless and until such time as the Corporation is provided with notice in writing from the original Participant or its legal representative and the Eligible Assignee, together with such other documentation as the Corporation may require, confirming that the assignee is an Eligible Assignee.

8

#### 18. Amendment and Termination of Plan

The Board may also, at any time, amend or revise the terms of this Plan, subject to the receipt of all necessary shareholder, Exchange and regulatory approvals, and any such amendment or revision shall apply to any Options theretofore granted under this Plan.

The Board has the discretion to make amendments to this Plan which it may deem necessary, without having to obtain shareholder approval including, without limitation:

- (a) minor changes of a "housekeeping nature";
- (b) amending Options under this Plan, including with respect to the Option Period (provided that the period during which an Option is exercisable does not exceed 10 years from the date the Option is granted and that such Option is not held by an Insider), vesting period, exercise method and frequency, subscription price (provided that such Option is not held by an Insider) and method of determining the subscription price, assignability and effect of termination of a Participant's employment or cessation of the Participant's directorship;
- (c) changing the class of Participants eligible to participate under this Plan;
- (d) accelerating the vesting of any Option;
- (e) extending the expiration date of any Option provided that the period during which an option is exercisable does not exceed 10 years from the date the Option is granted and provided that such Option is not held by an Insider, and where such Option is held by an Insider in such case, shareholder approval shall be obtained in connection with the extension;
- (f) changing the terms and conditions of any financial assistance which may be provided by the Corporation to Participants to facilitate the purchase of Common Shares under this Plan; and
- (g) adding a cashless exercise feature, payable in cash or securities, which provides for a full deduction of the number of underlying Common Shares from this Plan reserve.

Shareholder approval will be required in the case of: (i) any amendment to the amendment provisions of this Plan; (ii) any increase in the maximum number of Common Shares issuable under this Plan; (iii) any reduction in the exercise price or extension of the Option Period benefiting an insider of the Corporation; and (iv) any amendment to remove or to exceed the Insider Participation Limit, in addition to such other matters that may require shareholder approval under the rules and policies of the Exchange.

#### 19. Necessary Approvals

The obligation of the Corporation to issue and deliver Common Shares in accordance with this Plan and Options granted hereunder is subject to applicable securities legislation and to the receipt of any approvals that may be required from any regulatory authority or stock exchange having jurisdiction over the securities of the Corporation. If Common Shares cannot be issued to a Participant upon the exercise of an Option for any reason whatsoever, the obligation of the Corporation to issue such Common Shares shall terminate and any funds paid to the Corporation in connection with the exercise of such Option will be returned to the relevant Participant (or his Eligible Assignee) as soon as practicable.

#### 20. Stock Exchange Rules

This Plan and any option agreements entered into hereunder shall comply with the requirements from time to time of the Exchange.

#### 9

# 21. Market Fluctuations

No amount will be paid to, or in respect of, a Participant (or any Eligible Assignee) under the Plan to compensate for a downward fluctuation in the price of Common Shares, nor will any other form of benefit be conferred upon, or in respect of, a Participant (or any Eligible Assignee) for such purpose.

The Corporation makes no representations or warranties to Participants (or any Eligible Assignee) with respect to the Plan or the Options whatsoever. Participants (and any Eligible Assignees) are expressly advised that the value of any Options in the Plan will fluctuate as the trading price of Common Shares fluctuates.

In seeking the benefits of participation in the Plan, a Participant (and each Eligible Assignee) agrees to exclusively accept all risks associated with a decline in the market price of Common Shares whether before or after the exercise of Options and all other risks associated with participation in the Plan.

## 22. Right to Issue Other Shares

The Corporation shall not by virtue of this Plan be in any way restricted from declaring and paying stock dividends, issuing further Common Shares, varying or amending its share capital or corporate structure or conducting its business in any way whatsoever.

## 23. Notice

Any notice required to be given by this Plan shall be in writing and shall be given by registered mail, postage prepaid or delivered by courier or by facsimile transmission addressed, if to the Corporation, at its principal address in Toronto, Ontario (Attention: Chief Financial Officer); or if to a Participant (or to an Eligible Assignee), to such Participant at his address as it appears on the books of the Corporation or in the event of the address of any such Participant not so appearing then to the last known address of such Participant; or if to any other person, to the last known address of such person.

#### 24. Gender

Whenever used herein words importing the masculine gender shall include the feminine and neuter genders and vice versa.

## 25. Interpretation

This Plan will be governed by and construed in accordance with the laws of the Province of Ontario.

This Plan is subject to the approval of the stock exchange or exchanges on which the Common Shares are listed and, if applicable, of the shareholders of the Corporation.

## 26. Effective Date of Plan

This amended and restated Plan has been was adopted by the Board on September 22, 2014 and 2014, it became effective on the date of its initial approval by shareholders of the Corporation on June 9, 2015, 2015, and it was further amended and restated effective with further approval by the Board on March 14, 2018.

| Input:        |                                                   |
|---------------|---------------------------------------------------|
| Document 1 ID | PowerDocs://TOR01/4005480/10                      |
| Description   | TOR01-#4005480-v10-Titan_MedicalStock_Option_Plan |
| Document 2 ID | PowerDocs://TOR01/4005480/12                      |
| Description   | TOR01-#4005480-v12-Titan_MedicalStock_Option_Plan |
| Rendering set | Standard                                          |

| Legend:           |  |
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| Insertion         |  |
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|                | Count |    |  |  |
| Insertions     |       | 6  |  |  |
| Deletions      |       | 5  |  |  |
| Moved from     |       | 0  |  |  |
| Moved to       |       | 0  |  |  |
| Style change   |       | 0  |  |  |
| Format changed |       | 0  |  |  |
| Total changes  |       | 11 |  |  |

# TITAN MEDICAL.

#### Titan Medical Reports First Quarter 2018 Financial Results

TORONTO, May 14, 2018 -- Titan Medical Inc. (TSX:TMD) (OTCQB:TITXF) ("Titan" or "the Company"), a medical device company focused on the design and development of a robotic surgical system for application in minimally invasive surgery ("MIS"), announces financial results for the three months ended March 31, 2018.

All financial results are prepared in accordance with International Financial Reporting Standards, ("IFRS") and are reported in U.S. dollars, unless otherwise stated. The unaudited condensed interim financial statements and management's discussion and analysis for the period ended March 31, 2018 may be viewed on SEDAR at www.sedar.com.

David McNally, President and CEO said, "Refinements made to the SPORT Surgical System during the first quarter of 2018 incorporate surgeon input and will be important for future market adoption. With the goal of a successful commercial launch we were pleased to announce our collaboration with Mimic Technologies, a leader in robotic simulation software, and the demonstration of the first two simulation training modules. Also, we secured additional intellectual property protection for features of our robotic surgical system and recently strengthened our capital position."

Mr. McNally continued, "We are pleased with the medical community's continued acknowledgment of our progress, as evidenced by the acceptance and presentation of a surgeon-authored abstract at the highly regarded SAGES Annual Meeting. The abstract describes encouraging preclinical validation studies, and we expect that additional presentations related to preclinical evidence will follow at other conferences later this year."

#### Highlights for the first quarter of 2018 and recent weeks include:

- On February 27, 2018, the Company announced that it had been granted Canadian Patent No. CA 2,982,615, titled "End Effector Apparatus for a Surgical Instrument."
- On March 12, 2018, the Company presented at the 30<sup>th</sup> Annual ROTH Conference in Laguna Niguel, Calif.
- On March 20, 2018, the Company presented at the 28th Annual Oppenheimer Healthcare Conference in New York City.
- On March 27, 2018, the Company reported the issuance of U.S. Patent No. 9,925,014, titled "Actuator and Drive for Manipulating Tool."
- On March 29, 2018, Titan Medical and Mimic Technologies announced a collaboration and the successful demonstration of the first simulation training modules.
- On April 16, 2018, a surgeon-authored abstract highlighting the early European experience with the SPORT Surgical System was presented at the Society of American Gastrointestinal and Endoscopic Surgeons Annual Meeting in Seattle.
- On May 3, 2018, the Company presented at the Annual Bloom Burton & Company Healthcare Investor Conference in Toronto.

#### Financial results for the first quarter of 2018 include (all comparisons are with the first quarter of 2017, unless otherwise stated):

- Research and development expenses for the first quarter of 2018 were \$3,274,074 compared with \$2,946,323.
- Net and comprehensive loss for the first quarter of 2018 was \$808,699, compared with a net and comprehensive loss of \$4,988,274.
- The Company completed a public offering on April 10, 2018 for gross proceeds of \$8,035,941.
- Cash, cash equivalents and deposits with product development service providers as of March 31, 2018 were \$24,807,257, compared with \$28,668,927 as of December 31, 2017.

#### About Titan Medical Inc.

Titan Medical Inc. is focused on research and development through to the planned commercialization of computer-assisted robotic surgical technologies for application in minimally invasive surgery. The Company is developing the SPORT Surgical System, a single-port robotic surgical system. The SPORT Surgical System is comprised of a surgeon-controlled patient cart that includes a 3D high-definition vision system and multi-articulating instruments for performing MIS procedures, and a surgeon workstation that provides an advanced ergonomic interface to the patient cart and a 3D endoscopic view inside the patient's body. Titan intends to initially pursue focused surgical indications for the SPORT Surgical System, which may include one or more of gynecologic, urologic, colorectal or general abdominal procedures.

For more information, please visit the Company's website atwww.titanmedicalinc.com.

#### Forward-Looking Statements

This news release contains "forward-looking statements" which reflect the current expectations of management of the Company's future growth, results of operations, performance and business prospects and opportunities. Wherever possible, words such as "may", "would", "could", "will", "anticipate", "believe", "plan", "expect", "intend", "estimate", "potential for" and similar expressions have been used to identify these forward-looking statements. These statements reflect management's current beliefs with respect to future events and are based on information currently available to management. Forward-looking statements involve significant risks, uncertainties and assumptions. Many factors could cause the Company's actual results, performance or achievements to be materially different from any future results, performance or achievements that may be expressed or implied by such forward-looking statements, including, without limitation, those listed in the "Risk Factors" section of the Company's Annual Information Form dated March 31, 2018 (which may be viewed at www.sedar.com). Should one or more of these risks or uncertainties materialize, or should assumptions underlying the forward-looking statements prove incorrect, actual results, performance or achievements may vary materially from those expressed or implied by the forward-looking statements. Although the forward-looking statements contained in this news release. These factors should be considered carefully, and prospective investors should not place undue reliance on the forward-looking statements. Although the forward-looking statements contained in the news release are based upon what management currently believes to be reasonable assumptions, the Company cannot assure prospective investors that actual results, performance or achievements will be consistent with these forward-looking statements.

#### **CONTACTS:**

LHA Kim Sutton Golodetz (212) 838-3777 kgolodetz@lhai.com or Bruce Voss (310) 691-7100 bvoss@lhai.com

# Item 1 Name and Address of Company

Titan Medical Inc. (the **"Company"** or **"Titan"**) 170 University Avenue Suite 1000 Toronto, Ontario M5H 3B3

# Item 2 Date of Material Change

May 10, 2018.

# Item 3 News Release

The press release attached as Schedule "A" was disseminated through Marketwired on May 10, 2018 with respect to the material changes.

# Item 4 Summary of Material Change

On May 10, 2018, the Company announced that the over-allotment option granted to Bloom Burton Securities Inc. as agent for its offering of 33,799,961 units, has been exercised and the Company has sold an additional 5,066,666 units for additional gross proceeds to the Company of CDN \$1,519,999.80.

| Item 5           | Full Description of Material Change                         |  |  |  |
|------------------|-------------------------------------------------------------|--|--|--|
| 5.1              | Full Description of Material Change                         |  |  |  |
| Please see the p | Please see the press release attached as Schedule "A".      |  |  |  |
| 5.2              | Disclosure for Restructuring Transactions                   |  |  |  |
| Not applicable.  |                                                             |  |  |  |
| Item 6           | Reliance on subsection 7.1(2) of National Instrument 51-102 |  |  |  |
| Not applicable.  |                                                             |  |  |  |
| Item 7           | Omitted Information                                         |  |  |  |
| Not applicable.  |                                                             |  |  |  |
|                  |                                                             |  |  |  |

## Item 8 Executive Officer

The following executive officer is knowledgeable about the material changes and may be contacted about this report:

Stephen Randall Chief Financial Officer (416) 548-7522 (ext. 152)

 Email:
 stephen@titanmedicalinc.com

 Website:
 www.titanmedicalinc.com

Item 9 Date of Report

May 22, 2018.

Schedule "A"

[See Attached]

#### **Titan Medical Announces Closing of Over-Allotment Option**

# NOT FOR DISTRIBUTION TO UNITED STATES NEWSWIRE SERVICES OR FOR DISSEMINATION IN THE UNITED STATES

TORONTO, May 10, 2018 -- Titan Medical Inc. (the 'Company') (TSX:TMD) (OTCQB:TITXF), a medical device company focused on the design, development and commercialization of a robotic surgical system for application in minimally invasive surgery ("MIS"), is pleased to announce that the over-allotment option (the 'Over-Allotment Option') granted to Bloom Burton Securities Inc. as agent for its offering (the 'Offering') of 33,799,961 units (the 'Units') at a price of CDN \$0.30 per Unit (the 'Offering Price') completed on April 10, 2018, has been exercised, and the Company has sold an additional 5,066,666 Units at the Offering Price for additional gross proceeds to the Company of CDN \$1,519,999.80.

Each Unit consists of one common share of the Company (a 'Common Share') and one common share purchase warrant entitling the holder to purchase one Common Share at a price of CDN \$0.35 until expiry on April 10, 2023. The net proceeds of the Offering, including those raised pursuant to the Over-Allotment Option, will be used to fund continued development work in connection with the Company's SPORT Surgical System, as well as for working capital and other general corporate purposes.

The Common Shares sold and issued in connection with the Over-Allotment Option were listed and posted for trading on the Toronto Stock Exchange (the **TSX**") under the symbol TMD at the opening on May 10, 2018.

The Units were qualified for sale by way of a prospectus dated April 3, 2018 (the 'Prospectus') filed by the Company in the Provinces of British Columbia, Alberta and Ontario.

#### About Titan Medical Inc.

Titan Medical Inc. is a Canadian public company focused on research and development through to the planned commercialization of computer-assisted robotic surgical technologies for application in MIS. The Company is currently developing the SPORT Surgical System, a single-port robotic surgical system. The SPORT Surgical System is comprised of a surgeon-controlled patient cart that includes a 3D high definition vision system and multi-articulating instruments for performing MIS procedures, and a surgeon workstation that provides the surgeon with an advanced ergonomic interface to the patient cart and a 3D endoscopic view inside the patient's body during MIS procedures. With the SPORT Surgical System, the Company aims to pursue a broad set of surgical indications, including general abdominal, gynecologic and urologic procedures.

For more information, please visit the Company's website atwww.titanmedicalinc.com.

#### **Forward-Looking Statements**

This news release contains "forward-looking statements" which reflect the current expectations of management of the Company's future growth, results of operations, performance and business prospects and opportunities. Wherever possible, words such as "may", "would", "could", "will", "anticipate", "believe", "plan", "expect", "intend", "estimate", "potential for" and similar expressions have been used to identify these forward-looking statements. These statements, including statements with respect to the use of the net proceeds of the Offering, reflect management's current beliefs with respect to future events and are based on information currently available to management. Forward-looking statements involve significant risks, uncertainties and assumptions. Many factors could cause the Company's actual results, performance or achievements to be materially different from any future results, performance or achievements that may be expressed or implied by such forward-looking statements, including, without limitation, those listed in the "Risk Factors" section of the Company's Annual Information Form dated March 31, 2018 and in the Prospectus (which may be viewed at <u>www.sedar.com</u>). Should one or more of these risks or uncertainties materialize, or should assumptions underlying the forward looking statements prove incorrect, actual results, performance, or achievements may vary materially from those expressed or implied by the forward-looking statements contained in this news release. These factors should be considered carefully, and prospective investors should not place undue reliance on the forward-looking statements. Although the forward-looking statements contained in the news release are based upon what management currently believes to be reasonable assumptions, the Company cannot assure prospective investors that actual results, performance or achievements will be consistent with these forward-looking statements.

#### **U.S. Securities Law Caution**

The securities described herein have not been, and will not be, registered under the United States Securities Act of 1933, as amended (the 'U.S. Securities Act"), or any state securities laws, and accordingly, may not be offered or sold to, or for the account or benefit of, persons in the United States or "U.S. persons," as such term is defined in Regulation S promulgated under the U.S. Securities Act ("U.S. Persons"), except in compliance with the registration requirements of the U.S. Securities Act and applicable state securities requirements or pursuant to exemptions therefrom. This press release does not constitute an offer to sell or a solicitation of an offer to buy any of the Company's securities to, or for the account or benefit of, persons in the United States or U.S. Persons.

# **Contact Information**

LHA Investor Relations Kim Sutton Golodetz (212) 838-3777 kgolodetz@lhai.com

or

Bruce Voss (310) 691-7100 bvoss@lhai.com





8th Floor, 100 University Avenue Toronto, Ontano M5J 2Y1 www.computershare.com

Security Class

Holder Account Number

Fold

Fold

# Form of Proxy - ANNUAL GENERAL AND SPECIAL MEETING OF SHAREHOLDERS TO BE HELD ON JUNE 14, 2018

# This Form of Proxy is solicited by and on behalf of Management.

#### Notes to proxy

- Every holder has the right to appoint some other person or company of their choice, who need not be a holder, to attend and act on their behalf at the meeting or any
  adjournment or postponement thereof. If you wish to appoint a person or company other than the persons whose names are printed herein, please insert the name of your
  chosen proxyholder in the space provided (see reverse).
- If the securities are registered in the name of more than one owner (for example, joint ownership, trustees, executors, etc.), then all those registered should sign this proxy. If you are voting
  on behalf of a corporation or another individual you must sign this proxy with signing capacity stated, and you may be required to provide documentation evidencing your power to sign this
  proxy.
- 3. This proxy should be signed in the exact manner as the name(s) appear(s) on the proxy.
- 4. If this proxy is not dated, it will be deemed to bear the date on which it is mailed by Management to the holder.
- 5. The securities represented by this proxy will be voted as directed by the holder, however, if such a direction is not made in respect of any matter, this proxy will be voted as recommended by Management.
- 6. The securities represented by this proxy will be voted in favour or withheld from voting or voted against each of the matters described herein, as applicable, in accordance with the instructions of the holder, on any ballot that may be called for and, if the holder has specified a choice with respect to any matter to be acted on, the securities will be voted accordingly.
- This proxy confers discretionary authority in respect of amendments or variations to matters identified in the Notice of Meeting or other matters that may properly come before the meeting or any adjournment or postponement thereof.
- 8. This proxy should be read in conjunction with the accompanying documentation provided by Management.

Proxies submitted must be received by 5:00 p.m., Eastern Time, on June 12, 2018.

# VOTE USING THE TELEPHONE OR INTERNET 24 HOURS A DAY 7 DAYS A WEEK!



- Call the number listed BELOW from a touch tone telephone.
- 1-866-732-VOTE (8683) Toll Free

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• Go to the following web site:

 www.investorvote.com
 Smartphone? Scan the QR code to vote now.



To Receive Documents Electronically

You can enroll to receive future securityholder communications electronically by visiting www.investorcentre.com and clicking at the bottom of the page.

If you vote by telephone or the Internet, DO NOT mail back this proxy.

Voting by mail may be the only method for securities held in the name of a corporation or securities being voted on behalf of another individual. Voting by mail or by Internet are the only methods by which a holder may appoint a person as proxyholder other than the Management nominees named on the reverse of this proxy. Instead of mailing this proxy, you may choose one of the two voting methods outlined above to vote this proxy.

To vote by telephone or the Internet, you will need to provide your CONTROL NUMBER listed below.

CONTROL NUMBER

# Appointment of Proxyholder

IWe, being holder(s) of Titan Medical Inc. hereby appoint: David McNally, OR or failing him, John Barker

Print the name of the person you are appointing if this person is someone other than the Management Nominees listed herein.

L

as my/our proxyholder with full power of substitution and to attend, act and to vote for and on behalf of the shareholder in accordance with the following direction (or if no directions have been given, as the proxyholder sees fit) and all other matters that may properly come before the Annual General and Special Meeting of shareholders of Titan Medical Inc. to be held at Borden Ladner Genvais LLP, Bay Adelaide Centre, East Tower, 22 Adelaide Street West, 34th Floor, Toronto, Ontario on June 14, 2018 at 1:30 p.m. and at any adjournment or postponement thereof.

VOTING RECOMMENDATIONS ARE INDICATED BY HIGHLIGHTED TEXT OVER THE BOXES.

| 1. Election of Directors                                                         | 100          | Withhol     | d                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Withhole   | d                              | LO         | Withhold |      |
|----------------------------------------------------------------------------------|--------------|-------------|--------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|--------------------------------|------------|----------|------|
| 01. John Barker                                                                  |              |             | 02. David McNally                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            | 03. Stephen Randall            |            |          |      |
| 04. John Schellhorn                                                              |              |             | 05. Bruce Wolff                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            |                                |            |          | Fold |
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| 2. Appointment of Auditors<br>Appointment of BDO Canada LL                       | P as Auditor | s of the C  | orporation for the ensuing year            | and authorizing t                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | he Directo | ors to fix their remuneration. |            |          |      |
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| 3. Stock Option Plan<br>Approval of the Stock Option Pla                         | in.          |             |                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            |                                |            |          |      |
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| <ol> <li>Share Consolidation</li> <li>To consider, and if deemed advi</li> </ol> | sable, appro | ve the cor  | isolidation of the outstanding c           | ommon shares of                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | the Corpo  | oration.                       |            |          |      |

| Authorized Signature(s) -<br>instructions to be execute                                                                       | This section must be completed for your<br>d.                                                                                                                   | Signature(s)                               | Date                       |
|-------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|----------------------------|
| We authorize you to act in accord<br>evoke any proxy previously given<br>ndicated above, this Proxy will !                    | lance with mylour instructions set out above. IWe hereby<br>with respect to the Meeting. If no voting instructions ai<br>be voted as recommended by Management. | y<br>re                                    | DD <b>/</b> MM <b>/</b> YY |
| nterim Financial Statements - Mark 1<br>ike to receive interim Financial Statem<br>accompanying Management's Discussi<br>mail | ents and like to receive the Annual Fin                                                                                                                         |                                            |                            |
| you are not mailing back your proxy, y                                                                                        | ou may register online to receive the above financial report(s) by                                                                                              | mail at www.computershare.com/mailinglist. |                            |
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#### Titan Medical Applies to List Its Common Shares on Nasdaq, Announces 1-for-30 Reverse Stock Split

TORONTO, June 01, 2018 -- **Titan Medical Inc. ("Titan" or the "Company")**(TSX:TMD) (OTCQB:TITXF), a medical device company focused on the design, development and commercialization of a robotic surgical system for application in minimally invasive surgery ("MIS"), announces that it has applied to list its common shares on the Nasdaq Stock Market LLC ("Nasdaq"). In connection with the planned U.S. listing, and subject to approval from Titan's shareholders at the upcoming annual and special meeting, the board of directors has approved a consolidation of the Company's outstanding common shares in a ratio of 1-for-30. The consolidation is expected to take effect prior to the opening of trading on Tuesday, June 19, 2018.

"We believe that dual listing our common stock on both the TSX and Nasdaq presents the opportunity to expand awareness of the company among U.S.-based investors, and potentially provides avenues for additional sources of funding as we work to complete the development of the SPORT Surgical System," said David McNally, President and Chief Executive Officer of Titan Medical. "The considerable progress we have made in product development, strengthening our intellectual property portfolio, the successful demonstration of the first simulation training modules with our collaborator Mimic Technologies, and most recently, surgeons presenting abstracts at renowned medical conferences, all underlie the timing of this decision. The consolidation of our shares is a necessary step to meet Nasdaq's listing requirements and we anticipate that our stock will be listed by the end of June."

#### Share Consolidation Ratio and Effect on Outstanding Common Shares.

Titan Medical's board of directors has determined that the consolidation will be done on the basis of one new common share for every 30 currently outstanding common shares. The consolidation is expected to take effect prior to the opening of trading on June 19, 2018, and the Company's common shares are expected to commence trading under its current symbol, TMD, on the Toronto Stock Exchange on a post-consolidation basis beginning at the open of markets on June 19, 2018. There are currently 419,888,311 common shares issued and outstanding, and it is expected that there will be 13,996,277 common shares issued and outstanding following the consolidation, subject to rounding for any fractional shares. No fractional shares will be issued as a result of the share consolidation.

#### Shareholder Authorization.

The proposed share consolidation is subject to shareholders approval. At the upcoming annual and special meeting of shareholders to be held on June 14, 2018, shareholders will be requested to pass a special resolution (the "Special Resolution") in respect of the proposed share consolidation on the basis of the range of pre-consolidation share to post-consolidation share ratios of 5:1 to 30:1 with the precise ratio to be determined by the Board of Directors in its sole discretion. Further details are provided in the Company's management information circular dated May 11, 2018 in respect of the meeting.

A consolidation of Common Shares was approved by way of a special resolution of the shareholders of the Corporation at the last annual and special meeting held on June 15, 2017. The special resolution was approved by over 87.3% of votes cast at the meeting but the authorization granted thereunder will lapse on June 14, 2018 and accordingly, shareholders are being requested to approve the Special Resolution at the upcoming shareholders meeting on June 14, 2018.

## Registered Holders.

Registered shareholders holding share certificates will be mailed a letter of transmittal advising of the share consolidation and instructing them to surrender their share certificates representing pre-consolidation common shares to Computershare Investor Services Inc. for replacement certificates or direct registration advice representing their post-consolidation common shares. Until surrendered for exchange, following the effective date of the consolidation, each share certificate formerly representing pre-consolidation common shares will be deemed to represent the number of whole post-consolidation common shares to which the holder is entitled as a result of the consolidation.

Holders of common shares of the Company who hold uncertificated common shares (that is common shares held in book-entry form and not represented by a physical share certificate), either as registered holders or beneficial owners, will have their existing book-entry account(s) electronically adjusted by the Company's transfer agent or, for beneficial shareholders, by their brokerage firms, banks, trusts or other nominees that hold in street name for their benefit. Such holders do not need to take any additional actions to exchange their pre-consolidation common shares for post-consolidation common shares.

*Non-Registered Holders*. Beneficial shareholders holding their common shares through a bank, broker or other nominee should note that such banks, brokers or other nominees may have different procedures for processing the consolidation than those that have been put in place by the Company for registered shareholders. If you hold your common shares with such a bank, broker or other nominee, and if you have questions in this regard, you are encouraged to contact your nominee.

The Company currently anticipates that, subject to the receipt of all required approvals, its common shares will begin trading on the Nasdaq before the end of June 2018. The listing of the Company's common shares on the Nasdaq Stock Market remains subject to the approval of that exchange and the satisfaction of all applicable listing requirements.

*Convertible Securities.* The exercise or conversion price and/or the number of common shares issuable under outstanding convertible securities, including warrants and stock options, exercisable for, or convertible or exchangeable into, pre– consolidation common shares ("Convertible Securities") that have not been exercised or cancelled prior to the effective date of the implementation of the proposed share consolidation will be proportionately adjusted pursuant to the terms thereof on the same exchange ratio described above and each holder of pre–consolidation Convertible Securities will become entitled to receive post–consolidation common shares pursuant to such adjusted terms, where required and subject to TSX approval. The trading symbol for listed warrants will not change due to the proposed share consolidation.

## About Titan Medical Inc.

Titan Medical Inc. is focused on research and development through to the planned commercialization of computer-assisted robotic surgical technologies for application in minimally invasive surgery. The Company is developing the SPORT Surgical System, a single-port robotic surgical system. The SPORT Surgical System is comprised of a surgeon-controlled patient cart that includes a 3D high-definition vision system and multi-articulating instruments for performing MIS procedures, and a surgeon workstation that provides an advanced ergonomic interface to the patient cart and a 3D endoscopic view inside the patient's body. Titan intends to initially pursue focused surgical indications for the SPORT Surgical System, which may include one or more of gynecologic, urologic, colorectal or general abdominal procedures.

For more information, please visit the Company's website at www.titanmedicalinc.com.

## Forward-Looking Statements

This news release contains "forward-looking statements" which reflect the current expectations of management of the Company's future growth, results of operations, performance and business prospects and opportunities. Wherever possible, words such as "may", "would", "could", "will", "anticipate", "believe", "plan", "expect", "intend", "estimate", "potential for" and similar expressions have been used to identify these forward-looking statements. These statements reflect management's current beliefs with respect to future events and are based on information currently available to management. Forward-looking statements involve significant risks, uncertainties and assumptions. Many factors could cause the Company's actual results, performance or achievements to be materially different from any future results, performance or achievements that may be expressed or implied by such forward-looking statements, including, without limitation, those listed in the "Risk Factors" section of the Company's Annual Information Form dated March 31, 2018 (which may be viewed at www.sedar.com). Should one or more of these risks or uncertainties materialize, or should assumptions underlying the forward-looking statements prove incorrect, actual results, performance or achievements may vary materially from those expressed or implied by the forward-looking statements. Although the forward-looking statements contained in this news release. These factors should be considered carefully, and prospective investors should not place undue reliance on the forward-looking statements. Although the forward-looking statements contained in the news release are based upon what management currently believes to be reasonable assumptions, the Company cannot assure prospective investors that actual results, performance or achievements will be consistent with these forward-looking statements.

Contacts:

LHA Investor Relations Kim Sutton Golodetz (212) 838-3777 kgolodetz@lhai.com or Bruce Voss (310) 691-7100 bvoss@lhai.com

# Item 1 Name and Address of Company

Titan Medical Inc. (the **"Company"** or **"Titan"**) 170 University Avenue Suite 1000 Toronto, Ontario M5H 3B3

# Item 2 Date of Material Change

May 31, 2018.

# Item 3 News Release

The press release attached as Schedule "A" was disseminated through Marketwired on June 1, 2018 with respect to the material change.

# Item 4 Summary of Material Change

On June 1, 2018, the Company announced that it has applied to list its common shares on the Nasdaq Stock Market LLC ("Nasdaq"). In connection with the planned U.S. listing, and subject to approval from Titan's shareholders at the upcoming annual and special meeting, the board of directors has approved a consolidation of the Company's outstanding common shares on the basis of a ratio of one post-consolidation share for 30 pre-consolidation shares which is expected to take effect prior to the opening of trading on Tuesday, June 19, 2018.

# Item 5 Full Description of Material Change

5.1 Full Description of Material Change

Please see the press release attached as Schedule "A".

5.2 Disclosure for Restructuring Transactions

Not applicable.

## Item 6 Reliance on subsection 7.1(2) of National Instrument 51-102

Not applicable.

## Item 7 Omitted Information

Not applicable.

# Item 8 Executive Officer

The following executive officer is knowledgeable about the material changes and may be contacted about this report:

Stephen Randall Chief Financial Officer (416) 548-7522 (ext. 152)

 Email:
 stephen@titanmedicalinc.com

 Website:
 www.titanmedicalinc.com

# Item 9 Date of Report

June 5, 2018.

Schedule "A"

[See Attached]

#### Titan Medical Applies to List Its Common Shares on Nasdaq, Announces 1-for-30 Reverse Stock Split

TORONTO, June 01, 2018 -- **Titan Medical Inc. ("Titan" or the "Company")**(TSX:TMD) (OTCQB:TITXF), a medical device company focused on the design, development and commercialization of a robotic surgical system for application in minimally invasive surgery ("MIS"), announces that it has applied to list its common shares on the Nasdaq Stock Market LLC ("Nasdaq"). In connection with the planned U.S. listing, and subject to approval from Titan's shareholders at the upcoming annual and special meeting, the board of directors has approved a consolidation of the Company's outstanding common shares in a ratio of 1-for-30. The consolidation is expected to take effect prior to the opening of trading on Tuesday, June 19, 2018.

"We believe that dual listing our common stock on both the TSX and Nasdaq presents the opportunity to expand awareness of the company among U.S.-based investors, and potentially provides avenues for additional sources of funding as we work to complete the development of the SPORT Surgical System," said David McNally, President and Chief Executive Officer of Titan Medical. "The considerable progress we have made in product development, strengthening our intellectual property portfolio, the successful demonstration of the first simulation training modules with our collaborator Mimic Technologies, and most recently, surgeons presenting abstracts at renowned medical conferences, all underlie the timing of this decision. The consolidation of our shares is a necessary step to meet Nasdaq's listing requirements and we anticipate that our stock will be listed by the end of June."

#### Share Consolidation Ratio and Effect on Outstanding Common Shares.

Titan Medical's board of directors has determined that the consolidation will be done on the basis of one new common share for every 30 currently outstanding common shares. The consolidation is expected to take effect prior to the opening of trading on June 19, 2018, and the Company's common shares are expected to commence trading under its current symbol, TMD, on the Toronto Stock Exchange on a post-consolidation basis beginning at the open of markets on June 19, 2018. There are currently 419,888,311 common shares issued and outstanding, and it is expected that there will be 13,996,277 common shares issued and outstanding following the consolidation, subject to rounding for any fractional shares. No fractional shares will be issued as a result of the share consolidation.

#### Shareholder Authorization.

The proposed share consolidation is subject to shareholders approval. At the upcoming annual and special meeting of shareholders to be held on June 14, 2018, shareholders will be requested to pass a special resolution (the "Special Resolution") in respect of the proposed share consolidation on the basis of the range of pre-consolidation share to post-consolidation share ratios of 5:1 to 30:1 with the precise ratio to be determined by the Board of Directors in its sole discretion. Further details are provided in the Company's management information circular dated May 11, 2018 in respect of the meeting.

A consolidation of Common Shares was approved by way of a special resolution of the shareholders of the Corporation at the last annual and special meeting held on June 15, 2017. The special resolution was approved by over 87.3% of votes cast at the meeting but the authorization granted thereunder will lapse on June 14, 2018 and accordingly, shareholders are being requested to approve the Special Resolution at the upcoming shareholders meeting on June 14, 2018.

## Registered Holders.

Registered shareholders holding share certificates will be mailed a letter of transmittal advising of the share consolidation and instructing them to surrender their share certificates representing pre-consolidation common shares to Computershare Investor Services Inc. for replacement certificates or direct registration advice representing their post-consolidation common shares. Until surrendered for exchange, following the effective date of the consolidation, each share certificate formerly representing pre-consolidation common shares will be deemed to represent the number of whole post-consolidation common shares to which the holder is entitled as a result of the consolidation.

Holders of common shares of the Company who hold uncertificated common shares (that is common shares held in book-entry form and not represented by a physical share certificate), either as registered holders or beneficial owners, will have their existing book-entry account(s) electronically adjusted by the Company's transfer agent or, for beneficial shareholders, by their brokerage firms, banks, trusts or other nominees that hold in street name for their benefit. Such holders do not need to take any additional actions to exchange their pre-consolidation common shares for post-consolidation common shares.

*Non-Registered Holders*. Beneficial shareholders holding their common shares through a bank, broker or other nominee should note that such banks, brokers or other nominees may have different procedures for processing the consolidation than those that have been put in place by the Company for registered shareholders. If you hold your common shares with such a bank, broker or other nominee, and if you have questions in this regard, you are encouraged to contact your nominee.

The Company currently anticipates that, subject to the receipt of all required approvals, its common shares will begin trading on the Nasdaq before the end of June 2018. The listing of the Company's common shares on the Nasdaq Stock Market remains subject to the approval of that exchange and the satisfaction of all applicable listing requirements.

*Convertible Securities.* The exercise or conversion price and/or the number of common shares issuable under outstanding convertible securities, including warrants and stock options, exercisable for, or convertible or exchangeable into, pre– consolidation common shares ("Convertible Securities") that have not been exercised or cancelled prior to the effective date of the implementation of the proposed share consolidation will be proportionately adjusted pursuant to the terms thereof on the same exchange ratio described above and each holder of pre–consolidation Convertible Securities will become entitled to receive post–consolidation common shares pursuant to such adjusted terms, where required and subject to TSX approval. The trading symbol for listed warrants will not change due to the proposed share consolidation.

## About Titan Medical Inc.

Titan Medical Inc. is focused on research and development through to the planned commercialization of computer-assisted robotic surgical technologies for application in minimally invasive surgery. The Company is developing the SPORT Surgical System, a single-port robotic surgical system. The SPORT Surgical System is comprised of a surgeon-controlled patient cart that includes a 3D high-definition vision system and multi-articulating instruments for performing MIS procedures, and a surgeon workstation that provides an advanced ergonomic interface to the patient cart and a 3D endoscopic view inside the patient's body. Titan intends to initially pursue focused surgical indications for the SPORT Surgical System, which may include one or more of gynecologic, urologic, colorectal or general abdominal procedures.

For more information, please visit the Company's website at www.titanmedicalinc.com.

## Forward-Looking Statements

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Contacts:

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June 11, 2018

The Board of Directors Titan Medical Inc. 170 University Avenue, Suite 10000 Toronto, ON M5H 3B3

Dear Sirs / Mesdames:

#### Re: Titan Medical Inc. (the "Company")

We refer to Registration statement (FORM 40-F) filed by Titan Medical Inc. (the "Company") pursuant to section 12 of the Securities Exchange Act of 1934, as amended, dated June 11, 2018.

We consent to the use in this Registration Statement on Form 40-F of:

- Our report, dated February 13, 2018, on the financial statements of Titan Medical Inc. (the "Company"), which comprise the balance sheets as at December 31, 2017 and December 31, 2016 and the statements of shareholders' equity and deficit, net and comprehensive loss and cash flows for the years ended December 31, 2017 and December 31, 2016 and a summary of significant accounting policies and other explanatory information; and
- our report, dated March 21, 2017, on the financial statements of the Company, which comprise the balance sheets as at December 31, 2016 and December 31, 2015 and the statements of shareholders' equity and deficit, net and comprehensive loss and cash flows for the years ended December 31, 2016 and December 31, 2015 and a summary of significant accounting policies and other explanatory information;

each of which is included in this Registration Statement on Form 40-F being filed by the Company with the United States Securities and Exchange Commission

Tel: 416 865 0200

Fax: 416 865 0887

www.bdo.ca

We report that we have read the Registration Statement and all information specifically incorporated by reference therein and have no reason to believe that there are any misrepresentations in the information contained therein that are derived from the financial statements upon which we have reported or that are within our knowledge as a result of our audit of such financial statements.

Yours truly,

BDO Cranada LLP

#### Chartered Professional Accountants, Licensed Public Accountants

BDO Canada LLP, a Canadian limited liability partnership, is a member of BDO International Limited, a UK company limited by guarantee, and forms part of the international BDO network of independent member firms.

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