UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 40-F

☐ **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 December 31, 2018

Commission File Number 001-38524

Titan Medical Inc.

(Exact name of Registrant as specified in its charter)

Ontario, Canada	**3841**	**98-0663504**
(Province or other jurisdiction of incorporation or organization)	**(Primary Standard Industrial Classification Code Number)**	**(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	Name of each exchange on which registered
Common Shares, no par value	**The NASDAQ Stock Market LLC**

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**

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

21,675,849

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 ☐ No

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the Registrant was required to submit such files).

☐ Yes ☐ No

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule12b-2 of the Exchange Act.

Emerging growth company ☒

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" or the "Registrant") is a Canadian issuer that is permitted, under the multijurisdictional disclosure system adopted in the United States, to prepare this annual report on Form 40-F (this "Annual Report") pursuant to Section 13 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), in accordance with Canadian disclosure requirements, which are different from those of the United States. The Company is a "foreign private issuer" as defined in Rule 3b-4 under the Exchange Act and Rule 405 under the Securities Act of 1933, as amended. 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 thereunder.

FORWARD LOOKING STATEMENTS

The Exhibits incorporated by reference into this Annual Report of the Registrant contain "forward-looking information" and "forward-looking statements", within the meaning of applicable Canadian and United States securities laws. (collectively herein referred to as "forward-looking statements"). These statements relate to future events or future performance and reflect the Company's expectations and assumptions regarding the growth, results of operations, performance and business prospects and opportunities of the Company. These forward-looking statements are made as of the date of this Annual Report 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, 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", represent the Company's estimates only as of the date of this Annual Report and the documents incorporated by reference herein, respectively, and should not be relied upon as representing the Company's 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. This list is not exhaustive of the factors that may affect our forward-looking statements. Some of the important risks and uncertainties that could affect forward-looking statements are described further in the exhibits attached to this Annual Report on Form 40-F, including those described in the Annual Information Form ("AIF") of the Company filed as Exhibit 99.1 to this Annual Report on Form40-F and incorporated by reference herein. Should one or more of these risks and uncertainties materialize, or should underlying assumptions prove incorrect, actual results may vary materially from those described in the forward-looking statements.

NOTE TO UNITED STATES READERS – DIFFERENCES IN UNITED STATES AND CANADIAN REPORTING PRACTICES

The Registrant is permitted, under a multijurisdictional disclosure system adopted by the United States Securities and Exchange Commission (the "SEC"), to prepare this Annual 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 Annual Report in accordance with International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board, and which are not comparable to financial statements of United States companies.

CURRENCY

Unless otherwise indicated, all dollar amounts in this Annual Report on Form40-F are in United States dollars. The exchange rate of Canadian dollars into United States dollars, on December 31, 2018 based upon the daily exchange rate as quoted by the Bank of Canada was U.S.$1.00 = Cdn.$1.3642.

ANNUAL INFORMATION FORM

The AIF for the fiscal year ended December 31, 2018 is filed asExhibit 99.1 to this Annual Report and is incorporated by reference herein.

AUDITED ANNUAL FINANCIAL STATEMENTS

The audited consolidated financial statements of the Company for the years ended December 31, 2018 and 2017, including the report of the independent auditor thereon, are filed as Exhibit 99.2 to this Annual Report, and are incorporated by reference herein.

MANAGEMENT'S DISCUSSION AND ANALYSIS

The Company's MD&A for the year ended December 31, 2018 is filed asExhibit 99.3 to this Annual Report, and is incorporated by reference herein.

TAX MATTERS

Purchasing, holding, or disposing of the Company's securities may have tax consequences under the laws of the United States and Canada that are not described in this Annual Report.

CONTROLS AND PROCEDURES

Disclosure Controls and Procedures

At the end of the period covered by this annual report for the fiscal year ended December 31, 2018, an evaluation was carried out under the supervision of, and with the participation of, the Company's management, including its Chief Executive Officer ("CEO") and Chief Financial Officer ("CFO"), of the effectiveness of the design and operation of the Company's disclosure controls and procedures (as defined in Rule 13a-15(e) and 15d-15(e) of the Exchange Act). Based upon that evaluation, the Company's CEO and CFO have concluded that the disclosure controls and procedures were effective to give reasonable assurance that the information required to be disclosed by the Company in reports that it files or submits under the Exchange Act is (i) recorded, processed, summarized and reported, within the time periods specified in the SEC's rules and forms, and (ii) accumulated and communicated to management, including its principal executive and principal financial officers, or persons performing similar functions, as appropriate to allow timely decisions regarding required disclosure.

Internal Control Over Financial Reporting

This Annual Report does not include an evaluation of the effectiveness of the Company's internal control over financial reporting due to a transition period established by rules of the SEC for newly public companies.

Management's Annual Report on Internal Control over Financial Reporting

This Annual Report does not include a report of management's assessment regarding internal control over financial reporting due to a transition period established by rules of the SEC for newly public companies.

Attestation Report of the Registered Public Accounting Firm

This Annual Report does not include an attestation report of the Company's registered public accounting firm due to a transition period established by rules of the SEC for newly public companies.

Changes in Internal Control over Financial Reporting

During the year ended December 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.

CORPORATE GOVERNANCE

The Company's Board of Directors (the "Board of Directors") is responsible for the Company's corporate governance and has a separately designated standing Corporate Governance and Nominating Committee, Compensation Committee and an Audit Committee. The Board of Directors has determined that all of the members of the Corporate Governance and Nominating Committee, Compensation Committee and Audit Committee are independent, based on the criteria for independence prescribed by Rule 10A-3 of the Exchange Act and Rule 5605(a)(2) of the NASDAQ Stock Market Rules.

Corporate Governance and Nominating Committee

The Corporate Governance and Nominating Committee is responsible for overseeing and assessing the functioning of the Board of Directors and the committees of the Board of Directors and for the development, recommendation to the Board of Directors, implementation and assessment of effecting corporate governance principles. The Corporate Governance and Nominating Committee's responsibilities also include identifying candidates for directorship and recommending that the Board of Directors select qualified director candidates for election at the annual meeting of shareholders.

The Company's Corporate Governance and Nominating Committee is comprised of John E. Barker, John E. Schellhorn and Dr. Bruce G. Wolff, all of whom are independent based on the criteria for independence prescribed by Rule 10A-3 of the Exchange Act and Rule 5605(a)(2) of the NASDAQ Stock Market Rules.

Compensation Committee

The Compensation Committee assists the Board of Directors in discharging the Board of Director's responsibilities relating to the compensation and retention of key senior management employees with the skills and expertise needed to enable the Company to achieve its goals and strategies at fair and competitive compensation, including appropriate incentives. The Compensation Committee is responsible for:

- reviewing compensation payable to the Chief Executive Officer of the Company and other executives;
- reviewing the compensation payable to directors;
- overseeing the administration of compensation plans;
- reviewing executive and director compensation disclosure to be made in the proxy circular prepared in connection with the Company's annual meeting of shareholders; and
- reviewing the Company's compensation standards, along with management's annual recommendations, to ensure each are consistent with each other and currently appropriate.

The Company's Compensation Committee is comprised of John E. Barker, John E. Schellhorn and Dr. Bruce G. Wolff, all of whom are independent based on the criteria for independence prescribed by Rule 10A-3 of the Exchange Act and Rule 5605(a)(2) of the NASDAQ Stock Market Rules.

AUDIT COMMITTEE

The Board of Directors has a separately designated standing Audit Committee established in accordance with Section 3(a)(58)(A) of the Exchange Act and Rule 5602(c) of the NASDAQ Stock Market Rules. The Company's Audit Committee is comprised of John E. Barker, John E. Schellhorn and Dr. Bruce G. Wolff, all of whom, in the opinion of the Company's Board of Directors, are independent (as determined under Rule 10A-3 of the Exchange Act and Rule 5605(a)(2) of the NASDAQ Stock Market Rules). All three members of the Audit Committee are financially literate, meaning they are able to read and understand the Company's financial statements and to understand the breadth and level of complexity of the issues that can reasonably be expected to be raised by the Company's financial statements. The Audit Committee meets the composition requirements set forth by Section 5605(c)(2) of the NASDAQ Stock Market Rules.

The members of the Audit Committee are appointed by the Company's Board of Directors, on the recommendation of the Corporate Governance and Nominating Committee, annually. Each member of the Audit Committee will remain on the committee until the next annual meeting of shareholders after his or her appointment, unless otherwise removed or replaced by the Board of Directors at any time.

The full text of the Audit Committee Charter is available on the Company's website atwww.titanmedicalinc.com and is attached as Schedule A to the AIF, which is filed as Exhibit 99.1 to this Annual Report.

Audit Committee Financial Expert

The Board of Directors has determined that John E. Barker (i) is an "audit committee financial expert" as defined in Item 407(d)(5)(ii) and (iii) of Regulation S-K and Rule 5605(c)(2)(A) of the NASDAQ Stock Market Rules; and (ii) is independent (as determined under Exchange ActRule 10A-3 and Rule 5605(a)(2) of the NASDAQ Stock Market Rules).

PRE-APPROVAL OF AUDIT AND NON-AUDIT SERVICES PROVIDED BY INDEPENDENT AUDITOR

The Audit Committee pre-approves all audit services to be provided to the Company by its independent auditors.Non-audit services that are prohibited to be provided to the Company by its independent auditors may not be pre-approved. In addition, prior to the granting of anypre-approval, the Audit Committee must be satisfied that the performance of the services in question will not compromise the independence of the independent auditors. All non-audit services performed by the Company's auditor for the fiscal year ended December 31, 2018 werepre-approved by the Audit Committee of the Company. No non-audit services were approved pursuant to the*de minimis* exemption to the pre-approval requirement.

PRINCIPAL ACCOUNTANT FEES AND SERVICES – INDEPENDENT AUDITOR

The following table shows the aggregate fees billed to the Company by BDO Canada LLP, Chartered Professional Accountants and Licensed Public Accountants, the Company's independent auditor, in each of the last two years.

	2017	2018
Audit Fees	$ 47,695	$ 56,085
Audit-Related Fees (1)	22,430	31,534
Tax Fees (2)	—	—
All Other Fees (3)	126,941	139,109
Total	$197,066	$226,728

(1) "Audit-Related Fees" refers to the aggregate audit related fees billed for assurance and related services that are reasonably related to the performance of the audit or review of the Company's interim financial statements and are not reported as "Audit Fees"

(2) "Tax Fees" refers to the aggregate tax fees billed for tax compliance, advice, planning and assistance with the preparation of tax returns.

(3) "All Other Fees" refers to the aggregate fees billed relating to the issuance of prospectus documents during the year and other regulatory filings.

OFF-BALANCE SHEET ARRANGEMENTS

Other than for leased premises occupied by the Company, as discussed in note 8 of the audited financial statements for the year ended December 31, 2018 and 2017, the Company does not utilize off balance sheet arrangements.

CODE OF ETHICS

The Company has adopted a Code of Business Conduct and Ethics that applies to directors, officers and employees of, and consultants and contractors to, the Company (the "Code"). The Code has been posted on the Company's website at www.titanmedicalinc.com. The Code meets the requirements for a "code of ethics" within the meaning of that term in General Instruction 9(b) of the Form 40-F.

All waivers of the Code with respect to any of the employees, officers or directors covered by it will be promptly disclosed as required by applicable securities rules and regulations. During the fiscal year ended December 31, 2018, the Company did not waive or implicitly waive any provision of the Code with respect to any of the Company's principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions.

TABULAR DISCLOSURE OF CONTRACTUAL OBLIGATIONS

The following table lists as of December 31, 2018 information with respect to the Company's known contractual obligations:

	Payments due by period				
Contractual Obligations	**Total**	**Less than 1 year**	**1-3 years**	**3-5 years**	**More than 5 years**
Long-Term Debt Obligations	—	—	—	—	—
Capital (Finance) Lease Obligations	—	—	—	—	—
Operating Lease Obligations	52,841	52,841	—	—	—
Purchase Obligations	12,756,962	12,756,962	—	—	—
Other Long-Term Liabilities Reflected on the Company's Balance Sheet under the GAAP of the primary financial statements	—	—	—	—	—
Total	**$**12,809,803	**$**12,809,803	**$** 0	**$** 0	**$** 0

NOTICES PURSUANT TO REGULATION BTR

There were no notices required by Rule 104 of Regulation BTR that the Company sent during the year ended December 31, 2018 concerning any equity security subject to a blackout period under Rule 101 of Regulation BTR.

MINE SAFETY DISCLOSURE

Not applicable.

NASDAQ STATEMENT OF GOVERNANCE DIFFERENCES

The Company is a "foreign private issuer" as defined in Rule 3b-4 under Exchange Act and its common shares are listed on The NASDAQ Stock Market LLC ("NASDAQ") and the Toronto Stock Exchange ("TSX"). Rule 5615(a)(3) of NASDAQ Stock Market Rules permits foreign private issuers to follow home country practices in lieu of certain provisions of NASDAQ Stock Market Rules. A foreign private issuer that follows home country practices in lieu of certain provisions of NASDAQ Stock Market Rules must disclose ways in which its corporate governance practices differ from those followed by domestic companies either on its website or in the annual report that it distributes to shareholders in the United States. A description of the ways in which the Company's governance practices differ from those followed by domestic companies pursuant to NASDAQ standards are as follows:

Shareholder Meeting Quorum Requirement: NASDAQ Stock Market Rule 5620(c) ("Rule 5620(c)") requires that the minimum quorum requirement for a meeting of shareholders be 33 1/3 % of the outstanding common shares. In addition, Rule 5620(c) requires that an issuer listed on NASDAQ state its quorum requirement in its by-laws.

The Company has elected to follow Canadian practices consistent with the requirements of the TSX and the *Business Corporations Act* (Ontario) (the "OBCA") in lieu of Rule 5620(c). The Company's practices with regard to this requirement are not prohibited by the OBCA or the rules of the TSX. The Company's quorum requirement is set forth in its by-laws, which provide that a quorum for the transaction of business at any meeting of shareholders is one person present in person or by proxy representing 20% of the outstanding common shares entitled to vote at the meeting.

UNDERTAKING

The Company 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; the securities in relation to which the obligation to file an annual report on Form 40-F arises; or transactions in said securities.

CONSENT TO SERVICE OF PROCESS

The Company has previously filed with the SEC a written consent to service of process onForm F-X. Any change to the name or address of the Company's agent for service shall be communicated promptly to the SEC by amendment to the Form F-X referencing the file number of the Company.

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 Annual Report to be signed on its behalf by the undersigned, thereunto duly authorized.

TITAN MEDICAL INC.

By: /s/ Stephen D. Randall
Name: Stephen D. Randall
Title: Chief Financial Officer and Director

Date: March 29, 2019

EXHIBIT INDEX

The following documents are being filed with the Commission as Exhibits to this Annual Report:

Exhibit	Description
99.1	Annual Information Form dated March 29, 2019
99.2	Audited Annual Consolidated Financial Statements and notes thereto as at and for the years ended December 31, 2018 and 2017, together with the report thereon of the independent auditor
99.3	Management's Discussion and Analysis for the year ended December 31, 2018
99.4	Certificate of Chief Executive Officer Pursuant to Rule 13a-14(a) of the Exchange Act
99.5	Certificate of Chief Financial Officer Pursuant to Rule 13a-14(a) of the Exchange Act
99.6	Certificate of Chief Executive Officer Pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
99.7	Certificate of Chief Financial Officer Pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
99.8	Consent of BDO Canada LLP
101.INS	XBRL Instance
101.SCH	XBRL Taxonomy Extension Schema
101.CAL	XBRL Taxonomy Extension Calculation Linkbase
101.DEF	XBRL Taxonomy Extension Definition Linkbase
101.LAB	XBRL Taxonomy Extension Label Linkbase
101.PRE	XBRL Taxonomy Extension Presentation Linkbase

TITAN MEDICAL INC.

ANNUAL INFORMATION FORM

For the fiscal year ended December 31, 2018

March 29, 2019

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CORPORATE STRUCTURE

Name, Address and Incorporation

Titan Medical Inc. ("Titan" or the "Company" or "we") is the successor corporation formed by amalgamation 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.

Intercorporate Relationships

Titan does not have any subsidiaries.

Currency

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" and "forward-looking statements", within the meaning of applicable Canadian and United States securities laws. (collectively herein referred to as "forward-looking statements"). These statements relate to future events or future performance and reflect the Company's expectations and assumptions regarding the growth, results of operations, performance and business prospects and opportunities of the Company. These forward-looking statements are made as of the date of this short form prospectus 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, 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 the Company's estimates only as of the date of this short form prospectus and the documents incorporated by reference herein, respectively, and should not be relied upon as representing the Company's 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 human cadaver studies;
- the Company's expectation that it can in a timely manner produce the appropriate preclinical, and if necessary, clinical data required;
- the Company's expectation with respect to launching a commercial product in certain jurisdictions;
- the Company's intentions to develop a robust training curriculum andpost-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 and retention of qualified personnel and partners;
- the Company's intention to pursue the recruitment of surgeons and hospitals for the required studies and to obtain approval from the IRB (as defined herein) of each hospital;
- 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 suitable to support human factors studies and preclinical testing activities in 2019;
- 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 expectation that it will be able to finance its continuing operations by accessing public markets for its securities;
- the Company's intended use of proceeds of any offering of its securities;
- 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 projected competitive conditions with respect to the Company's products;
- the estimated size of the market for robotic surgical systems; and
- the Company's intention to reprice options granted to its current officers and employees.

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 short form prospectus, including but not limited to those described in the section titled, "Risk Factors", in this short form prospectus, in any document incorporated by reference herein. These risks include, but are not limited to:

- Additional Financing and Going Concern
- History of Losses
- Dependence on Key Personnel
- Ability to Attract Qualified Employees to Maintain and Grow Business
- Breach and Loss of Trade Secrets and Other Proprietary Information
- Dependence on Third Parties
- Competition
- Infringement of Intellectual Property Rights
- Intellectual Property – Patents
- Intellectual Property – Trademarks
- Ability to License Other Intellectual Property Rights
- 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
- Government Regulation
- Profitability
- Changes in Government Policy
- Changes in Accounting and Tax Rules
- Contingent Liabilities

- Obligations as a Public Company
- The Company is a “Foreign Private Issuer” Under U.S. Securities Laws
- The Company may Lose its Status as a Foreign Private Issuer Under U.S. Securities Laws
- The Company is an “Emerging Growth Company” Under U.S. Securities Laws
- 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 Risks
- Supplier Risks
- Stock Price Volatility
- Future Share Sales
- Limited Operating History
- Strategic Alliances
- 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;
- the Company’s ability to meet the continued listing standards of Nasdaq and the TSX; 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.

The Company cautions 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 thatforward-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 been primarily focused on product development, preclinical evaluation of its technology, securing intellectual property protection, and raising equity capital.

2018

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. Accordingly, product development was accelerated in 2018 in preparation for commercial manufacturing, including hardware and software development at all levels, involving the workstation, patient cart, cameras and light sources, instruments, and disposable components that facilitate successful surgery. Product improvements were completed and implemented in a capital equipment engineering confidence build of an improved prototype in December 2018 and are expected to be followed by software integration and system performance evaluation in 2019.

During 2018, the Company confirmed with the Food and Drug Administration of the United States Department of Health and Human Services (the "FDA"), that confirmatory human data will be required for its planned regulatory submission. The performance of human surgeries with the SPORT Surgical System will require an Investigational Device Exemption ("IDE") from the FDA, which must be submitted and approved in advance. Further, the recruitment of surgeons from multiple hospital sites will be necessary to perform the surgeries. Each of these sites will require approval of their independent Institutional Review Board ("IRB") to approve the studies. During the first three quarters of 2019, the Company plans to pursue the recruitment of surgeons and hospitals for the studies, IDE approval by the FDA, and approvals by the IRB of each hospital, in preparation for the confirmatory human studies planned for completion during the fourth quarter.

Feasibility

The Company has reported that surgeons have performed a wide variety of procedures using the SPORT Surgical System and confirmed the feasibility of the system in those procedures. The surgeons performed 45 procedures on live porcine (unless otherwise indicated), as follows:

- Gynecological and gynecological oncology (8 procedures at Columbia University (New York City) ("Columbia University") and Florida Hospital's Nicholson Center (Celebration, Florida) ("Florida Hospital"):
    - Radical Hysterectomy with Bilateral Salpingo Oophorectomy and Bilateral Pelvic / Para-Aortic Node Dissection
    - Simple Hysterectomy with Bilateral Salpingo Oophorectomy and Bilateral Pelvic Node Dissection
    - Simple Hysterectomy with Bilateral Salpingo Oophorectomy
- Urology (19 procedures at the Institut Hospitalo-Universitaire (Strasbourg, France) ("IHU Strasbourg") and Florida Hospital):
    - Hemi-Nephrectomy and Partial Nephrectomy
    - Prostatectomy (Human Cadaver)
    - Pyeloplasty
    - Ureteral-Bladder Anastomosis
- General Surgery (14 procedures at IHU Strasbourg and Florida Hospital):
    - Cholecystectomy (1 Human Cadaver, 5 Live Porcine)
    - Nissen Fundoplication (1 Human Cadaver, 3 Live Porcine)
    - Esophagectomy (Human Cadaver)
    - Gastrectomy
    - Splenectomy
- Colorectal (4 procedures at Florida Hospital):

- o Colectomy
- o Low Anterior Resection

Peer-Reviewed Abstracts

The following peer-reviewed abstracts have been presented at leading conferences:

1. Multi-disciplinary applications of a new robotic platform by Barbara Seeliger, MD and Lee Swanstrom, MD (IHU Strasbourg). Accepted and presented at Society of American Gastrointestinal and Endoscopic Surgeons Meeting, Seattle, WA, April 2018.

2. Single-port prostatectomy using SPORT Surgical System by Eric Barret, MD (IMM, France). Accepted and presented at EAU Section of Urology Technology Meeting, Modena, Italy, May 2018.

3. Multispecialty single port robotic technology applied in the live animal model: proof of concept by Travis Rogers, MD, Eduardo Parra Davila, MD, Vipul Patel, MD (all from Florida Hospital), Ricardo Estape, MD (South Miami GOG) and Armando Melani, MD (IRCAD Brazil). Accepted and presented as a poster at Society of Robotic Surgery Meeting, Stockholm, Sweden, June 2018.

4. Feasibility of single-port partial nephrectomy using SPORT surgical system by Eric Barret, MD (IMM, France). Accepted and presented as a poster at Society of Robotic Surgery Meeting, Stockholm, Sweden, June 2018.

5. Single-port robotic partial and hemi nephrectomy using a novel single port robotic platform by Sebastien Crouzet, MD (University of Lyon, France) and Barbara Seeliger, MD (IHU Strasbourg). Accepted and presented at EAU Robotic Urology Section Meeting, Marseille, France, September 2018.

6. Reverse Objective Structured Assessment of Technical Skills (Reverse-OSATS) as a means of measuring the capability of the Titan Medical SPORT Surgical System on core surgical principles by Chetna Arora, MD, Arnold P. Advincula, MD (both from Columbia University Medical Center) and William B. Burke, MD (Stony Brook Cancer Center). Accepted and presented at Society of European Robotic Gynecologic Surgeons Meeting, Milan, Italy, September 2018.

7. Multispecialty single port robotic technology applied in the live animal model: proof of concept by Travis Rogers, MD, Eduardo Parra Davila, MD, Vipul Patel, MD (all from Florida Hospital), Ricardo Estape, MD (South Miami GOG) and Armando Melani, MD (IRCAD Brazil). Accepted and presented at World Congress of Endourology Meeting, Paris, France, September 2018.

8. Feasibility of single-port partial nephrectomy using SPORT surgical system by Eric Barret, MD (IMM, France). Accepted and presented at World Congress of Endourology Meeting, Paris, France, September 2018.

9. Reverse Objective Structured Assessment of Technical Skills (Reverse-OSATS) as a means of measuring the capability of the Titan Medical SPORT Surgical System on core surgical principles by Chetna Arora, MD, Arnold P. Advincula, MD (both from Columbia University Medical Center) and William B. Burke, MD (Stony Brook Cancer Center). Accepted and presented at American Association of Gynecologic Laparoscopists Global Congress, Las Vegas, NV, November 2018.

Published Manuscript

In January 2019, the Company reported that a manuscript entitled, "Enablingsingle-site laparoscopy: the SPORT platform", and authored by Barbara Seeliger[1] Michele Diana[1] Jelle P. Ruurda[2] Konstantinos M. Konstantinidis[3] Jacques Marescaux[1] Lee L. Swanström[1,4] was published online in *Surgical Endoscopy* on January 8, 2019.

Methods A total of 12 minimally invasive procedures were performed on six pigs (5 cholecystectomies, 3 Nissen fundoplications, 1 splenectomy and 1 hepatic pedicle dissection) and on one human cadaver (1 cholecystectomy and 1 Nissen fundoplication), by four laparoscopic surgeons. The usability of the device was assessed by means of the modified objective structured assessment of technical skills (OSATS) score that was calculated and analyzed by two independent observers on the recorded videos. Surgeon feedback and recommendations were systematically recorded.

Results All procedures were successfully completed with the SPORT system. In general, surgeons reported to appreciate the intuitive interface and controls, the high-resolution 3D imaging, the dexterity of the end-effectors, and the ergonomic open control platform. Some features requiring optimization were also identified. The modified OSATS score demonstrated a learning curve effect for all device-related tasks.

Conclusions A variety of abdominal procedures could be safely completed with the current SPORT prototype, in thepre- clinical setting. This preliminary feasibility experience is promising and encourages further development of single-port robotically assisted surgery.

Share Consolidation

On June 19, 2018 a share consolidation was effected, on the basis of30 pre-consolidation common shares forming one post-consolidation common share, and the outstanding common shares in the capital of the Corporation ("**Common Shares**") were adjusted from 419,888,250 to 13,996,275. All references to Common Shares, warrants, and stock options have been updated to reflect the 1:30 share consolidation.

The Company's financings in 2018 included the following:

- On August 10, 2018, the Company completed an offering of securities. The Company sold 7,679,574 units under the offering at a price of $2.50 per unit for gross proceeds of approximately $19,198,935. Each unit consisted of one Common Share and one Common Share purchase warrant, each warrant entitling the holder to acquire one Common Share at an exercise price of $3.20 and expiring August 10, 2023.
- On April 10, 2018, the Company completed an offering of securities. The Company sold 1,126,665 units under the offering at a price of CDN $9.00 per unit for gross proceeds of approximately $8,035,941. Each unit consisted of one Common Share and one warrant, each warrant entitling the holder thereof to acquire one thirtieth ($1/30^{th}$) of one Common Share at an exercise price of CDN $0.35 and expiring April 10, 2023. On May 10, 2018, the Company announced the exercise of the over-allotment option granted to the agent in conjunction with the offering and the Company sold an additional 168,889 units at the offering price for additional gross proceeds of $1,189,856.

2017

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

1 IHU-Strasbourg Institute of Image-Guided Surgery, 1, place de l'Hôpital, 67091 Strasbourg Cedex, France.
2 Department of Surgical Oncology, University Medical Center, Utrecht, Utrecht, Netherlands.
3 Department of General, Bariatric, Laparoscopic and Robotic Surgery, Athens Medical Center, Athens, Greece.
4 Division of GI/MIS, The Oregon Clinic, Portland, OR, USA.

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, which were subsequently achieved on a timely basis. In particular, the Company:

- Finalized user requirements for the first-generation SPORT 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 ("Centres of Excellence"); Florida Hospital, Columbia University, and IHU Strasbourg.
- 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 U.S. and European patents.
- Communicated with the FDA, filing 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.
- 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 the following:

- In March 2017, the Company completed a prospectus qualified offering of 715,573 units for total gross proceeds of $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 thirtieth (1/30th) of one Common Share 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 to acquire one Common Share at an exercise price of CDN $0.50 and expiring March 16, 2021.
- In June 2017, the Company completed a prospectus qualified offering of 1,612,955 units and the issuance and sale of an additional 370,567 units in connection with the offering for total gross proceeds of $6,905,228. Each unit consisted of one Common Share and one Common Share purchase warrant. Each warrant entitles the holder to purchase one thirtieth (1/30th) of one additional Common Share for CDN$0.20 and expires June 29, 2022.
- In October 2017, the Company completed a non-brokered private placement of 446,197 Common Shares to investors led by a group of U.S.-based robotic surgeons for gross proceeds of $2,677,326.
- In December 2017, the Company completed a prospectus qualified offering of 1,533,333 units for total gross proceeds of $18,137,800. Each unit consisted of one Common Share and one Common Share purchase warrant. Each warrant entitles the holder to purchase one thirtieth (1/30th) of one additional Common Share for CDN$0.60 and expires December 5, 2022.

2016

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. Consequently, as well as due to 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 establishedU.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 ashort-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 further 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 then 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 389,027 units and the issuance and sale of an additional 58,226 units pursuant to the over-allotment option granted to the agent in connection with the offering for total gross proceeds of $8,732,038. Each unit consisted of one Common Share and one Common Share purchase warrant. Each warrant entitles the holder to

purchase one thirtieth (1/30th) of 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 501,831 units for gross proceeds of $11,607,359. Each unit consisted of one Common Share and one Common Share purchase warrant. Each warrant entitles the holder to purchase one thirtieth (1/30th) of 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 75,275 additional units pursuant to the over-allotment option granted to the agent in connection with the offering for gross proceeds of $1,759,396.
- In September 2016, the Company completed a prospectus qualified offering of 569,444 units for gross proceeds of $7,749,000. Each unit issued consisted of one Common Share and one Common Share purchase warrant. Each warrant entitles the holder to purchase one thirtieth (1/30th) of 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 67,667 additional units pursuant to the over-allotment option granted to the agent in connection with the offering for gross proceeds of $909,846.

DESCRIPTION OF THE BUSINESS

Product Development

The Company's business is focused on research and development through to the commercialization ofcomputer-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 comprised of a surgeon-controlled patient cart that includes a 3D high definition vision system andmulti-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 with input from surgeons and operating room staff experienced in minimally invasive surgery, consultation with medical technology development firms and input from the Company's Surgeon Advisory Board (the "Surgeon Advisory Board") comprised of surgeons who specialize in MIS. 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, with the intent that the system will appeal to a broader array of surgeons than systems that do not provide such adjustability.

The SPORT Surgical System patient cart is being developed to deliver interactivemulti-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 an integrated 2D wide-angle camera module that once inserted, provides visualization for optimal positioning of the camera insertion tube by the bedside assistant under the guidance of the surgeon. Once the camera insertion tube is inserted and positioned in the body, a separate steerable, 3D high definition endoscopic camera 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 reusablemulti-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 is developing a robust training curriculum andpost-training assessment tools for surgeons and surgical teams. The proposed training curriculum is planned to 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. On September 18, 2018, the Company announced the successful completion of 14 core surgical skills simulation modules for use with the SPORT Surgical System surgeon workstation. The successful demonstration and delivery of these modules was a significant development in the first phase of the comprehensive surgeon training curriculum that the Company is planning for its SPORT Surgical System.

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 29, 2019, the Company had ownership of 31 patents and 76 patent applications. The Company has accelerated the filing and prosecution of patents that management believes will validate the novelty of its unique technology, and in turn, support the value of the entire franchise. Early evidence of success with this initiative has been the rapid growth of its patent portfolio from 12 issued patents at December 31, 2016 to 31 issued patents as of March 29, 2019. The Company anticipates further expanding its patent portfolio by filing additional patent applications as it progresses in the development of robotic surgical technologies and potentially, 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 toward developing commercially viable robotic surgical technologies. These milestones relate to technology and design advancements as well as to targeted dates for preclinical and 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 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. Accordingly, product development was accelerated in 2018 in preparation for commercial manufacturing, including hardware and software development at all levels, involving the workstation, patient cart, cameras and light source, instruments, and disposable components that facilitate successful surgery. Product improvements were completed and demonstrated in a capital equipment engineering confidence build of an improved prototype in December 2018. Through correspondence and discussions during 2018, the Company was informed by the Food and Drug Administration of the United States Department of Health and Human Services, that confirmatory human data will be required for its planned regulatory submission. The performance of human surgeries with the SPORT Surgical System will require an Investigational Device Exemption from the FDA, which must be submitted and approved in advance of any confirmatory human studies. Further, the recruitment of surgeons from multiple hospital sites will be necessary to perform the surgeries. Each of these sites will require approval of their independent Institutional Review Board to approve the studies. During the first three quarters of 2019, the Company plans to pursue the recruitment of surgeons and hospitals for the studies, IDE approval by the FDA, and approvals by the IRB of each hospital, in preparation for the confirmatory human studies planned for completion during the fourth quarter.

A complete estimate of the timing and costs for development milestones beyond 2019 is speculative. The Company estimates that a minimum of $64.1 million will be required to fund its operations in 2019. Based on the cash and cash equivalents on hand, including deposits with suppliers as at December 31, 2018, the Company estimated that it would need to raise approximately $45 million to fund its operations in 2019. However, following the completion of a subsequent offering in March of 2019, the estimated amount required to be raised is reduced to approximately $28 million. This includes projected capital resources necessary for the Company to submit its 510(k) application to the FDA and 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. If successful with those efforts, the Company expects to proceed with early commercialization activities in the U.S. in 2020. 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, 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 2019 is not possible at this time. Please see "Risk Factors".

The Company's current plan is to raise sufficient financing and continue the development and commence 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 fourth quarter of 2019 to be as set out in the table below.

Milestone Number	***Development Milestones***	***Estimated Cost (in US million $)***	***Schedule for Milestone Completion***	***Comments***
Milestone 1	Prototype, test and procure surgeon feedback on revised workstation controls 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		Q2 2018	Completed
Milestone 2	Complete Camera Insertion Tube (CIT) engineering confidence build based on improved design Complete design of SPORT Surgical System workstation and patient cart for engineering confidence build Complete and demonstrate full suite of simulation software for beta test		Q3 2018	Completed
Milestone 3	Complete SPORT Surgical System capital equipment engineering confidence build based on improved design		Q4 2018	Completed
Milestone 4	Document results of confidence build unit testing, implement subsystem design improvements and schedule preliminary audit of quality system by European Notified Body		Q1 2019	Milestone substantially complete but awaiting confirmation of schedule for preliminary audit of quality system by European Notified Body

Milestone Number	*Development Milestones*	*Estimated Cost (in US million $)*	*Schedule for Milestone Completion*	*Comments*
Milestone 5	Update system design and related hardware and software documentation Verify production system operation with clinical experts under rigorous formal (summative) human factors evaluation under simulated robotic manipulation exercises (4) Implement SPORT Surgical System Design Freeze (4) Initiate preclinical live animal (swine) and cadaver studies according to final protocols for FDA submittal (4) Submit Investigational Device Exemption (IDE) application to FDA	16.9(1)	Q2 2019	
	Submit draft protocols to FDA in Q-submission(s) for comment			Completed
Milestone 6	Complete and document preclinical live animal (swine) and cadaver surgery studies according to final protocols for FDA submittal Obtain ISO 13485 Certification Receive IDE approval from FDA	16.1(2)	Q3 2019	
Milestone 7	Complete and document human confirmatory studies under IDE protocols for FDA submittal Submit Technical File to European Notified Body for review for CE Mark Submit 510(k) application to FDA	15.1(3)	Q4 2019	
	TOTAL	**48.1**		

Notes:

(1) Includes research and development costs estimated at approximately $15.5 million, and general and administrative costs estimated at approximately $1.4 million. As of the date of this short form prospectus, approximately $4 million remains outstanding of the total estimated cost to complete Milestone 4.

(2) Includes research and development costs estimated at approximately $14.7 million, and general and administrative costs estimated at approximately $1.4 million.

(3) Includes research and development costs estimated at approximately $13.7 million, and general and administrative costs estimated at approximately $1.4 million.

(4) These development milestones were previously included in Milestone 6 in the August Prospectus and scheduled for completion inQ3-Q4 2019. The schedule for completion of these development milestones has been revised to Q2 2019 and they have added to Milestone 5 as a result.

The amount of the Company's deposit with its primary product development supplier is based on forecasted invoices with the supplier and the Company's cash position on a monthly basis. Provided that the Company has sufficient financial resources to finance 12 months of operations, no deposit is required. If the Company has financial resources sufficient to finance operations for 6-12 months, then an amount equivalent to the projected amount of the next

month's invoice from the supplier is required as the deposit. If the Company has financial resources that would fund less than six months of operations, then a deposit equal to two months of projected invoices from the supplier is required. Balancing adjustments to the amount of the deposit are made on a monthly basis, crediting outstanding invoices when the amount that is on deposit exceeds the amount that would otherwise be required to be on deposit. In the event that other cash is not available to pay the outstanding invoices of the primary product development supplier, there are no restrictions preventing the Company from applying these deposit amounts towards the R&D work of the primary product development supplier required to complete Milestones 4 and 5. Approximately 95% of the remaining estimated costs for Milestones 4 and 5 will be conducted with the primary product development supplier.

Upon completion of the development of the SPORT Surgical System and following receipt of regulatory approval in the United States, the Company intends to utilize a direct sales force to initiate marketing the SPORT Surgical System to hospitals and ambulatory surgery centers.

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 to achieve them. 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 "Special Note Regarding Forward-Looking Statements" and "Risk Factors".

Please also refer to the risk factors set forth starting on page 17 of the AIF.

Market Opportunity

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

The size of the global market forrobotically-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 compound annual growth rate of 11.7% to project global revenue for the next five years.

The above-referenced market research report is subjective and speaks as of its original publication date (and not as of the date of this annual information form), and the opinions and market data expressed in the report are subject to change without notice. Management believes that this source is generally reliable, but the accuracy and completeness of this information is not guaranteed. The information presented in the report noted above and any underlying assumptions for the markets estimate and the projections contained therein have not been independently verified.

According to a press release issued by robotic surgery industry leader Intuitive Surgical on January 9, 2019, over 1,000,000 surgical procedures were performed with the da Vinci® Surgical System in 2018, an increase of approximately 18% compared with approximately 877,000 procedures performed in 2017, with further procedure growth of 13% to 17% projected for 2019. Intuitive Surgical reported that it shipped 926 da Vinci Surgical Systems in 2018, compared with 684 systems in 2017. The information set forth in the news release of Intuitive Surgical noted above has not been independently verified by the Company.

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, 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 and 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 robotics within the surgical environment. Robotic orcomputer-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 MIS 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, catheter-based interventional cardiology and radiology, and endoscopic, diagnostic and therapeutic bronchoscopic procedures.

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, with customer shipments that began in the third quarter of 2018. Specifically related to abdominal surgery, a new competitor in multi-port robotic surgery recently emerged, with TransEnterix Inc. receiving FDA clearance for its SenhanceTM Surgical Robotic System in October of 2017. In addition, Medrobotics Corporation has 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. On February 13, 2019, Ethicon, Inc. (a division of Johnson & Johnson) announced that it had entered into a definitive agreement to acquire Auris Health, Inc., the maker of the MonarchTM surgical platform, for approximately $5.75 billion (including contingent payments). 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, Inc., CMR Surgical Ltd. from the United Kingdom (Versius ® surgical robotic system) 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:

(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.

In preparation for its planned FDA 510(k) application, the Company has already filed several Q-Submissions with the FDA to clarify in detail the preclinical studies and confirmatory human data required to support its submission. The associated Q-Submission milestone was achieved in advance of the projected completion in 2019. The Company plans to design and execute its studies based on the FDA's responses, with the intent of filing a fully compliant 510(k) application by year-end.

Even 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 under the ISO 13485:2003 standard. Any modifications of existing products or development of new products in the future will require permission to affix the CE Mark to such products. The Company has initiated communication with a European Notified Body to arrange for ISO 13485:2003 certification of its quality system in advance of expectations of submitting for the CE Mark by year-end 2019.

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. The Company believes 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, trademark, 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 may license third party technologies to provide the Company with the flexibility to adopt preferred technologies.

As of March 29, 2019, the Company has ownership of 31 patents and 76 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 interactions 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.

While the Company believes that its technology being developed or utilized does not infringe upon the proprietary rights of third parties, its 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 or may have filed patent applications or may obtain additional patents and proprietary rights for technologies similar to those being developed or utilized by the Company. Accordingly, there may exist third party patents, patent applications or other proprietary rights that require the Company to alter its technology, obtain licenses or cease certain activities. The Company may become subject to claims by third parties that its technology infringes their intellectual property rights due to the growth of products in its target markets, the overlap in functionality of those products and the prevalence of products. The Company may become subject to these claims either directly 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.

Although the Company has registrations and pending applications for certain trademarks, it may be unable to obtain or maintain trademark registrations for the marks and names it uses in one or more countries. It is also 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 forced to cease using these marks and names.

Operations

The Company develops its core technologies through a combination ofin-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, 2018, the Company had a total of nine full-time employees and one full-time consultant.

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

As at December 31, 2018, the Company had shareholders' deficiency of $172,937,694 and current losses of $22,639,272. The Company currently does not generate any revenue (other than interest income on its cash balances) and accordingly it is primarily dependent upon equity financing for any additional funding required for development and operating expenses. Based on cash on hand and supplier deposits at December 31, 2018, the Company estimated that approximately $45 million in incremental funding would be needed, for the next 12 months to maintain its currently anticipated pace of development. However, following the completion of a subsequent offering in March of 2019, this amount is reduced to approximately $28 million. If additional funding is not available, the pace of the Company's product development plan may be reduced. These conditions indicate the existence of a material uncertainty that may cast significant doubt on the ability of the Company to continue as a going concern if additional funding is not secured.

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 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, 2018 and this negative cash flow is expected to continue.

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 andnon-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.

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 Company's ability to obtain required regulatory clearances and approvals in a timely manner;
- 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 acost-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 protection of the Company's intellectual property, including its processes, trade secrets andknow-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 – Patents

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.

Intellectual Property – Trademarks

Although the Company has registrations and pending applications for certain trademarks, it may not own or license trademark 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 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 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 trademark rights. These proceedings may occur even if the Company ceases 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 by it, including 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.

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.

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. 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 liquidity in the form of 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.

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 adversely 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.

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, 2018 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.

Obligations as a Public Company

The Company's business is subject to evolving corporate governance and public disclosure regulations that may from time to time increase both the Company's compliance costs and the risk of non-compliance, which could adversely impact the price of the Common Shares.

The Company is subject to changing rules and regulations promulgated by a number of governmental and self-regulated organizations, including, but not limited to, the Canadian Securities Administrators, the TSX, and the International Accounting Standards Board. These rules and regulations continue to evolve in scope and complexity creating many new requirements.

The Company is also subject to corporate governance standards that apply to us as a foreign issuer listed on the Nasdaq and registered with the United States Securities and Exchange Commission ("SEC"). Although the Company substantially complies with Nasdaq's corporate governance guidelines, it is exempt from certain Nasdaq requirements because it is subject to Canadian corporate governance requirements. The Company may from time to time seek other relief from corporate governance and exchange requirements and securities laws from the Nasdaq and other regulators. For the fiscal year ending December 31, 2019, the Company will be required to document and test its internal control procedures to satisfy the requirements of Section 404 of the Sarbanes-Oxley Act of 2002 ("SOX"). SOX requires management to perform an annual assessment of the Company's internal controls over financial reporting. The Company's internal controls over financial reporting may not be adequate, or management may not be able to maintain such internal controls as required by SOX. The Company may not be able to maintain effective internal controls over financial reporting on an ongoing basis, if standards are modified, supplemented or amended from time to time. If the Company does not satisfy the SOX requirements on an ongoing and timely basis, investors could lose confidence in the reliability of the Company's financial statements, and this could harm its business and have a negative effect on the trading price or market value of the securities of the Company.

If the Company does not implement new or improved controls, or experiences difficulties in implementing them, it could harm the Company's operating results or the Company may not be able to meet its reporting obligations. There is no assurance that the Company will be able to remediate material weaknesses, if any are identified in future periods, or maintain all of the necessary controls to ensure continued compliance. There is also no assurance that the Company will be able to retain personnel who have the necessary finance and accounting skills because of the increased demand for qualified personnel among publicly traded companies. Acquisitions can pose challenges in implementing the required processes, procedures and controls in the new operations. Companies that the Company acquires may not have disclosure controls and procedures or internal controls over financial reporting that are as thorough or effective

as those required by the securities laws that currently apply to the Company. If any of the Company's staff fail to disclose material information that is otherwise required to be reported, no evaluation can provide complete assurance that the Company's internal controls over financial reporting will detect this. The effectiveness of controls and procedures may also be limited by simple errors or faulty judgments. Continually enhancing internal controls is important, especially as the Company expands and the challenges involved in implementing appropriate internal controls over financial reporting increase. Although management intends to devote substantial time to ongoing compliance, including incurring the necessary costs associated therewith, the Company cannot be certain that it will be successful in complying with section 404 of SOX.

The Company is a "Foreign Private Issuer" Under U.S. Securities Laws

The Company is a foreign private issuer under applicable U.S. federal securities laws, and therefore, it is not required to comply with all the periodic disclosure and current reporting requirements of the United States Securities Exchange Act of 1934, as amended ("U.S. Securities Exchange Act"). As a result, the Company does not file the same reports that a U.S. domestic issuer would file with the SEC, although the Company will be required to file with or furnish to the SEC the continuous disclosure documents that it is required to file in Canada under Canadian securities laws. In addition, the Company's officers, directors and principal shareholders are exempt from the reporting and short-swing profit recovery provisions of Section 16 of the U.S. Exchange Act. Therefore, the Company's shareholders may not know on as timely a basis when the Company's officers, directors and principal shareholders purchase or sell Common Shares as the reporting periods under the corresponding Canadian insider reporting requirements are longer. In addition, as a foreign private issuer, the Company is exempt from the proxy rules under the U.S. Exchange Act.

The Company may Lose its Status as a Foreign Private Issuer Under U.S. Securities Laws

In order to maintain its status as a foreign private issuer, a majority of the Company's Common Shares must be either directly or indirectly owned by non-residents of the United States unless the Company also satisfies one of the additional requirements necessary to preserve this status. The Company may in the future lose its foreign private issuer status if a majority of its Common Shares are held in the United States and if the Company fails to meet the additional requirements necessary to avoid loss of its foreign private issuer status. The regulatory and compliance costs under U.S. federal securities laws as a U.S. domestic issuer may be significantly more than the costs incurred as a Canadian foreign private issuer eligible to use the multijurisdictional disclosure system ("MJDS"). If the Company is not a foreign private issuer, it would not be eligible to use the MJDS or other foreign issuer forms and would be required to file periodic and current reports and registration statements on U.S. domestic issuer forms with the SEC, which are more detailed and extensive than the forms available to a foreign private issuer. In addition, the Company may lose the ability to rely upon exemptions from Nasdaq corporate governance requirements that are available to foreign private issuers.

The Company is an "Emerging Growth Company" Under U.S. Securities Laws

The Company is an "emerging growth company" as defined in section 3(a) of the U.S. Exchange Act (as amended by the JOBS Act, enacted on April 5, 2012), and the Company will continue to qualify as an "emerging growth company" until the earliest to occur of: (a) the last day of the fiscal year during which the Company has total annual gross revenues of $1,070,000,000 (as such amount is indexed for inflation every 5 years by the SEC) or more; (b) the last day of the fiscal year of the Company following the fifth anniversary of the date of the first sale of common equity securities of the Company pursuant to an effective registration statement under the United States Securities Act of 1933, as amended; (c) the date on which the Company has, during the previous 3-year period, issued more than $1,000,000,000 in non-convertible debt; and (d) the date on which the Company is deemed to be a 'large accelerated filer', as defined in Rule 12b–2 under the U.S. Exchange Act. The Company would qualify as a large accelerated filer (and would cease to be an emerging growth company) as at June 30, 2019, being the last business day of its second fiscal quarter of this year, if the aggregate worldwide market value of common equity held by its non-affiliates would be US$700 million or more.

Investors may find the Common Shares less attractive because the Company relies upon certain of these exemptions. If some investors find the Common Shares less attractive as a result, there may be a less active trading market for the Common Shares and the Common Share price may be more volatile. However, if the Company no longer qualifies as an emerging growth company, the Company would be required to divert additional management time and attention

from the Company's product development and other business activities and incur increased legal and financial costs to comply with the additional associated reporting requirements.

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 complete 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 costs in 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 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 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 or both. Any 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 (under the symbol TMD) and the common shares also trade in the United States on the Nasdaq (under the symbol TMDI). 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 listed 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 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.

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.

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, 2018 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 21,675,849 were issued and outstanding as at December 31, 2018. 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 securities 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 issued only as fully paid and are non- assessable.

The Company also had outstanding as at December 31, 2018 warrants entitling their holders to purchase an aggregate of 13,901,859 Common Shares. These warrants are set forth in the table below:

	Issue Date	Expiry Date	Number of Common Shares issuable upon exercise of warrants	Exercise Price (CDN $) per Common Share
TMD.WT.F	November 16, 2015	November 16, 2020	233,740	$48.00
TMD.WT.G	February 12, 2016	February 12, 2021	386,694	$30.00
TMD.WT.G	February 23, 2016	February 12, 2021	58,226	$30.00
TMD.WT.H	March 31, 2016	March 31, 2021	501,831	$36.00

	Issue Date	Expiry Date	Number of Common Shares issuable upon exercise of warrants	Exercise Price (CDN $) per Common Share
TMD.WT.H	April 14, 2016	March 31, 2021	75,275	$36.00
TMD.WT.I	September 20, 2016	September 20, 2021	569,444	$22.50
TMD.WT.I	October 27, 2016	September 20, 2021	67,667	$22.50
NOT LISTED	March 16, 2017	March 16, 2019	135,824	$12.00
NOT LISTED	March 16, 2017	March 16, 2021	355,253	$15.00
NOT LISTED	June 29, 2017	June 29, 2022	75,810	$6.00
NOT LISTED	July 21, 2017	June 29, 2022	370,567	$6.00
NOT LISTED	August 24, 2017	August 24, 2022	563,067	$6.00
NOT LISTED	December 5, 2017	December 5, 2022	1,533,333	$18.00
NOT LISTED	April 10, 2018	April 10, 2023	1,126,665	$10.50
NOT LISTED	May 10, 2018	April 10, 2023	168,889	$10.50
*NOT LISTED	August 10, 2018	August 10, 2023	7,679,574	$4.15
TOTAL			13,901,859	

All of the warrants referenced in the table above are governed by warrant indentures (each a "Warrant Indenture") entered into between the Company and Computershare Trust Company of Canada (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 employees and consultants of the Company. At December 31, 2018, there were 925,782 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 2018 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 Common Shares are listed for trading in Canada on the TSX under the symbol "TMD". The Common Shares also trade on the Nasdaq in the United States under the symbol "TMDI".

The following table shows the close, high and low trading prices and the volume of shares traded for the Common Shares on the TSX and the Nasdaq for each month in 2018.

	TSX				Nasdaq[2]			
Month (2018)	**High (CDN $)**	**Low (CDN $)**	**Close (CDN $)**	**Volume**	**High (US $)**	**Low (US $)**	**Close (US $)**	**Volume**
December	2.59	1.44	2.002	128,319	1.98	1.05	1.459	1,768,093
November	3.00	2.30	2.544	182,390	2.03	1.80	1.942	1,018,750
October	2.95	2.47	2.704	279,330	2.2713	1.90	2.095	1,397,121
September	3.05	2.40	2.689	570,750	2.37	1.8542	2.080	3,484,916
August	3.98	2.22	2.756	1,375,150	4.24	1.70	2.153	5,182,049
July	7.79	3.67	5.543	797,520	7.00	2.82	4.256	2,445,234
June 19-30[1]	9.60	6.50	7.696	679,660	7.75	5.50	6.01	434,702
June 1-18	0.28	0.23	0.252	6,758,180	—	—	—	—
May	0.27	0.225	0.248	3,172,320	—	—	—	—
April	0.285	0.225	0.255	7,009,860	—	—	—	—
March	0.415	0.23	0.295	30,997,840	—	—	—	—
February	0.445	0.26	0.379	9,371,670	—	—	—	—
January	0.485	0.36	0.437	12,449,820	—	—	—	—

Notes:

(1) The 30:1 consolidation of the Common Shares was effected prior to the opening of trading on the TSX on June 19, 2018 (the "**Share Consolidation**"). All prices and share figures in the table above for periods prior to Jun 19, 2018 are pre-consolidation figures.

(2) The Common Shares commenced trading on the Nasdaq on June 27, 2018.

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 2018.

Month (2018)	**High (CDN $)**	**Low (CDN $)**	**Close (CDN $)**	**Volume**
December	—	—	—	—
November	—	—	—	—
October	—	—	—	—
September	—	—	—	—
August	—	—	—	—
July	—	—	—	—
June	—	—	—	—
May	—	—	—	—
April	—	—	—	—
March	$0.02	0.01	$0.011	274,578
February	—	—	—	—
January	$0.08	—	$0.012	591,348

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 2018.

Month (2018)	**High (CDN $)**	**Low (CDN $)**	**Close (CDN $)**	**Volume**
December	0.01	0.01	0.011	1,000

Month (2018)	High (CDN $)	Low (CDN $)	Close (CDN $)	Volume
November	0.02	0.015	0.016	37,000
October	0.02	0.01	0.019	43,000
September	0.01	0.01	0.012	2,000
August	0.025	0.015	0.018	123,500
July	0.025	0.015	0.017	255,350
June 19-30(1)	0.05	0.015	0.031	34,000
June 1-18	0.04	0.02	0.032	145,850
May	0.05	0.02	0.040	15,000
April	0.07	0.02	0.057	54,300
March	0.10	0.03	0.058	331,333
February	0.13	0.055	0.083	479,000
January	0.13	0.04	0.065	469,410

Notes:

(1) As a result of the Share Consolidation, as of the opening of trading on the TSX on June 19, 2018, each November 2020 warrant entitles the holder thereof to acquire one thirtieth (1/30th) of one Common Share at an exercise price of CDN $1.60.

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 2018.

Month (2018)	High (CDN $)	Low (CDN $)	Close (CDN $)	Volume
December	—	—	—	—
November	0.025	0.005	0.025	374,000
October	0.02	0.005	0.021	232,500
September	—	—	—	—
August	0.045	0.01	0.031	83,500
July	0.055	0.02	0.033	242,800
June 19-30(1)	0.04	0.04	0.058	1,000
June 1-18	0.06	0.05	0.054	84,000
May	0.05	0.045	0.051	102,500
April	0.08	0.04	0.064	173,650
March	0.165	0.07	0.134	212,222
February	0.165	0.07	0.118	393,400
January	0.18	0.04	0.121	211,400

Notes:

(1) As a result of the Share Consolidation, as of the opening of trading on the TSX on June 19, 2018, each February 2021 warrant entitles the holder thereof to acquire one thirtieth (1/30th) of one Common Share at an exercise price of CDN $1.00.

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 2018.

Month (2018)	High (CDN $)	Low (CDN $)	Close (CDN $)	Volume
December	—	—	—	—
November	0.025	0.01	0.021	186,000
October	0.015	0.005	0.013	438,700
September	0.025	0.02	0.022	65,000
August	0.035	0.015	0.019	191,200
July	0.04	0.015	0.028	172,140
June 19-30(1)	0.065	0.04	0.056	59,360
June 1-18	0.04	0.025	0.035	8,500
May	0.07	0.025	0.050	45,000
April	0.07	0.035	0.063	42,000
March	0.11	0.05	0.084	173,000
February	0.16	0.06	0.103	299,700
January	0.12	0.03	0.085	297,500

Notes:

(1) As a result of the Share Consolidation, as of the opening of trading on the TSX on June 19, 2018, each March 2021 warrant entitles the holder thereof to acquire one thirtieth (1/30th) of one Common Share at an exercise price of CDN $1.20.

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 2021 Warrants of the Company for each month in 2018.

Month (2018)	High (CDN $)	Low (CDN $)	Close (CDN $)	Volume
December	0.02	0.02	0.032	1,000
November	0.075	0.025	0.073	19,000
October	0.08	0.04	0.045	113,460
September	0.03	0.02	0.032	170,450
August	0.07	0.03	0.059	14,920
July	0.11	0.06	0.084	64,800
June 19-30(1)	0.105	0.07	0.828	98,000
June 1-18	0.10	0.10	0.10	44,100
May	0.10	0.075	0.090	13,400
April	0.10	0.10	0.108	500
March	0.195	0.10	0.123	239,900
February	0.175	0.07	0.127	113,400
January	0.48	0.11	0.150	404,200

Notes:

(1) As a result of the Share Consolidation, as of the opening of trading on the TSX on June 19, 2018, each September 2021 warrant entitles the holder thereof to acquire one thirtieth (1/30th) of one Common Share at an exercise price of CDN $0.75.

Please also see the table on Page 28 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, 2018, 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 Municipality and Country of Residence	Offices Held	Director Since	Principal Occupation(s) During the Five-Year Period Ending December 31, 2018
David J. McNally Salt Lake City, Utah, U.S.A.	President, Chief Executive Officer and 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. Domain Surgical, Inc. was merged with OmniGuide Holdings, Inc. in August 2016.
Stephen Randall Toronto, Ontario, Canada	Chief Financial Officer, Secretary and 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 Chartered Professional Accountant and Certified General Accountant designations.
John E. Barker(1)(2)(3) Burlington, Ontario, Canada	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)(3) Portsmouth, New Hampshire, U.S.A.	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. Since 2017, Mr. Schellhorn has been 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.

Name and Municipality and Country of Residence	Offices Held	Director Since	Principal Occupation(s) During the Five-Year Period Ending December 31, 2018
Domenic Serafino(1)(2)(3) Toronto, Ontario, Canada	Director	2018	Mr. Serafino is Chairman and CEO of Venus Concept Ltd., an aesthetic medical device company he founded in 2010. Previously he was with aesthetic medical laser company Syneron, now Canada Syneron, as president for North America. Prior to Syneron; Mr. Serafino was a partner, president and COO of Canada's largest laser distribution company, Sigmacon Group, from 1995 to 2001.
Dr. Bruce Wolff (1)(2)(3) Rochester, Minnesota, U.S.A.	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.
(3) Member of Governance and Nominating Committee.

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 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 and which resulted from an event that occurred while that person was acting in the capacity as a director, chief executive officer or chief financial officer.

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 (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, 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 been subject to (a) 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 (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, 2018, the then directors and executive officers of the Company, as a group, beneficially owned, directly or indirectly, or exercised control or direction over 65,428 common shares of the Company, representing approximately 0.30%% 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*".

Leadership Team

The Company's leadership team is as follows:

David J. McNally,
President, CEO & Director

Mr. McNally is an experienced entrepreneur and public company CEO with over 32 years of experience in the medical device industry. Throughout his career, Mr. McNally has founded and co-founded start-up companies that commercialized best-in-class surgical, life and organ support, diagnostic and home-care capital equipment and disposables. Among other accomplishments, he has experience leading companies trading on boards ranging from over-the-counter marketplaces to the Nasdaq exchange. Mr. McNally also has experience in FDA Clearance and CE Mark for Class II devices as well as managing relationships with strategic partners including OEM suppliers and global distributors. Mr. McNally is formerly, the founder, President, CEO & Chairman of Domain Surgical Inc., a developer, manufacturer and marketer of advanced energy surgical platforms, that merged with OmniGuide Holdings, Inc. in 2016. Mr. McNally is also a former co-founder, President & CEO of ZEVEX International Inc. (Nasdaq: ZVXI), a developer, manufacturer and marketer of award-winning medical devices, that was acquired by MOOG Inc. in 2007.

Education: Bachelor of Science in mechanical engineering from Lafayette College, MBA from the University of Utah,co-inventor on 40+ U.S. and international patents.

Stephen Randall, CPA, CGA
CFO & Director

Mr. Randall has over 30 years of executive experience in established and start-up companies including accounting, finance, capital markets, tax planning, compliance, IT management, mergers & acquisitions and operations.

Education: Bachelor of Arts in political science from the University of Western Ontario, Commerce Degree from the University of Windsor.

Perry Genova, PhD
SVP of R&D

Dr. Genova is an expert in medical device product development including surgical robotics, an author of 32peer-reviewed papers and an inventor named as 30 U.S. Patents + 24 patents pending.

Education: PhD in biomedical engineering from the University of North Carolina at Chapel Hill, Bachelor of Science in electrical engineering from the University of North Carolina at Charlotte.

Curtis Jensen
VP of Quality& Regulatory Affairs

Mr. Jensen has over 20 years of experience leading quality and regulatory affairs teams at established andstart-up U.S. companies to achieve quality systems compliance, 510(k) clearances and CE Mark approvals.

Education: Master of Science in applied mathematics from Johns Hopkins University, Bachelor of Science in electrical engineering from Utah State University.

Sachin Sankholkar
VP of Marketing

Mr. Sankholkar has over 20 years of advanced medical device marketing experience, including 15 years at Intuitive Surgical Inc. developing robotic surgeon network and procedural expertise in multiple subspecialties.

Education: Master of Science in biomedical engineering from Drexel University, MBA from the University of Southern California.

Chris Seibert
VP of Business Development

Mr. Seibert has over 12 years of advanced medical device sales and management experience, including 10 years at Intuitive Surgical Inc. and Stereotaxis Inc. with IDN/GPO sales channel expertise and C-level access and network.

Education: Bachelor of Arts from the University of Alabama, Master of Arts in human relations from the University of Oklahoma, MBA from the University of South Alabama.

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.

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.

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, gynecology, 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.

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(1)	Audit-Related Fees(2)	Tax Fees(3)	All Other Fees(4)
December 31, 2018	$56,085	$31,534	—	$139,109
December 31, 2017	$47,695	$22,430		$126,941

Notes:

(1) "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.
(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 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 Company's external auditor in conjunction with filings by the Company of prospectus and registration statements with securities regulators in Canada and the United states in respect of public offerings completed by Titan in 2017 and 2018.

CONFLICT OF INTEREST

To our knowledge, and other than as disclosed herein, there is no known existing or potential material conflicts of interest among the Company, its directors and officers, or other members of management as a result of their outside business interests, except that certain of its directors may serve as directors of other companies and therefore it is possible that a conflict may arise between their duties to the Company and their duties as a director of such other companies.

PROMOTER

No person is or has been within the two financial years immediately preceding the date hereof, or during the current financial year, 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, 2018, 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, 2018, 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, 8th 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, 2018, or before January 1, 2018, 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. 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 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.

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 11, 2018. Additional financial information is provided in the Company's financial statements and management's discussion and analysis for the year ended December 31, 2018.

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 viatele-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.

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. 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 information to and from the Committee and f ostering 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

Exhibit 99.2

TITAN MEDICAL INC.
Financial Statements
Years Ended December 31, 2018 and 2017

(IN UNITED STATES DOLLARS)

Tel: 416 865 0200
Fax: 416 865 0887
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BDO Canada LLP
222 Bay Street
Suite 2200, PO Box 131
Toronto ON M5K 1H1 Canada

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Shareholders of Titan Medical Inc.

Opinion on the Financial Statements

We have audited the accompanying financial statements of Titan Medical Inc. (the "Company"), which comprise the balance sheet as of December 31, 2018, the related statements of changes in shareholders' equity and deficit, net and comprehensive loss, and cash flow for the year ended December 31, 2018, and the related notes including a summary of significant accounting policies and other explanatory information (collectively referred to as the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company at December 31, 2018, and the results of their operations and their cash flows for the year ended December 31, 2018**,** in conformity with International Financial Reporting Standards (IFRSs) as issued by International Accounting Standards Board ("IASB").

Going Concern Uncertainty

The accompanying financial statements have been prepared assuming that the Company will continue as a going concern. As discussed in Note 2 to the financial statements, the Company has suffered recurring losses from operations and has a net capital deficiency that raise substantial doubt about its ability to continue as a going concern. Management's plans in regard to these matters are also described in Note 2. The financial statements do not include any adjustments that might result from the outcome of this uncertainty.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audit. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) ("PCAOB") and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB. Further, we are required to be independent of the Company in accordance with the ethical requirements that are relevant to our audit of the financial statements in Canada and to fulfill our other ethical responsibilities in accordance with these requirements.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audit we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion.

Our audit included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audit also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

(signed) BDO Canada LLP

Chartered Professional Accountants, Licensed Public Accountants

Toronto, Ontario
February 13, 2019

We have served as the Company's auditor since 2010.

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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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 sheet as at December 31, 2017 and the statements of shareholders' equity and deficit, net and comprehensive loss and cash flows for the year ended December 31, 2017 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 audit. We conducted our audit 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 audit 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 its financial performance and its cash flows for the year ended December 31, 2017 in accordance with International Financial Reporting Standards as issued by the International Accounting Standards Board.

(signed) BDO Canada LLP

Chartered Accountants, Licensed Public Accountants

Toronto, Ontario
February 13, 2018

TITAN MEDICAL INC.
Balance Sheets
As at December 31, 2018 and December 31, 2017
(In U.S. Dollars)

	Note	December 31, 2018	December 31, 2017
Assets			
Current Assets:			
Cash and cash equivalents		$ 11,471,243	$ 26,130,493
Amounts receivable		143,225	75,151
Deposits	8	8,541,630	2,538,434
Prepaid expense		586,581	149,593
Total Current Assets		$ 20,742,679	$ 28,893,671
Furniture and Equipment	3	—	6,714
Patent Rights	4	1,172,485	774,225
Total Assets		$ 21,915,164	$ 29,674,610
Liabilities			
Current Liabilities:			
Accounts payable and accrued liabilities		$ 6,447,888	$ 2,218,352
Warrant liability	2h, 5(a), 6	11,250,167	17,849,460
Total Liabilities		17,698,055	20,067,812
Shareholders' Equity			
Share Capital	5a	170,502,394	154,016,519
Contributed Surplus		6,652,409	5,146,784
Warrants	5b	—	741,917
Deficit		(172,937,694)	(150,298,422)
Total Equity		4,217,109	9,606,798
Total liabilities and equity		$ 21,915,164	$ 29,674,610

Commitments (Note 8)

See notes to financial statements

Approved on behalf of the Board:

John E. Barker
Chairman

David McNally
President and CEO

TITAN MEDICAL INC.
Statement of Shareholders' Equity and Deficit
For the Years Ended December 31, 2018 and 2017
(In U.S. Dollars)

	Note	Share Capital Number	Share Capital Amount	Contributed Surplus	Warrants	Deficit	Total Equity
Balance—December 31, 2016	5(a)	5,550,382	$112,742,810	$3,707,432	$ 855,800	$(116,711,438)	$ 594,604
Issued pursuant to agency agreement		4,232,428	20,799,951				20,799,951
Issued private placement		1,009,263	4,564,737				4,564,737
Issued other		7,500	67,954				67,954
Share issue expense			(2,132,238)				(2,132,238)
Warrants exercised during the year		1,755,141	17,392,158				17,392,158
Warrants expired during the year			113,883		(113,883)		—
Broker warrants exercised during the year		132,009	467,264				467,264
Stock based compensation				1,439,352			1,439,352
Net and Comprehensive loss for the year						(33,586,984)	(33,586,984)
Balance—December 31, 2017		12,686,723	$154,016,519	$5,146,784	$ 741,917	$(150,298,422)	$ 9,606,798
Issued pursuant to agency agreement		8,975,126	16,915,394				16,915,394
Issued Other		7,500	66,234				66,234
Share issue expense			(1,297,668)				(1,297,668)
Warrants exercised during the year		6,500	59,998				59,998
Warrants expired during the year			741,917		(741,917)		—
Stock based compensation				1,505,625			1,505,625
Net and Comprehensive loss for the year						(22,639,272)	(22,639,272)
Balance—December 31, 2018		21,675,849	$170,502,394	$6,652,409	$ —	$(172,937,694)	$ 4,217,109

See notes to financial statements

TITAN MEDICAL INC.
Statement of Net and Comprehensive Loss
For the Years Ended December 31, 2018 and 2017
(In U.S. Dollars)

	Note	Year Ended December 31, 2018	Year Ended December 31, 2017
Revenue:		$ —	$ —
Expenses:			
Amortization		29,041	17,360
Consulting fees		785,128	598,804
Stock based compensation	5(b)	1,505,625	1,439,352
Insurance		252,514	25,897
Management salaries and fees		2,683,187	2,449,323
Marketing and investor relations		231,032	277,737
Office and general		412,039	284,532
Professional fees		485,639	452,751
Rent		97,782	97,817
Research and Development		32,858,339	12,900,855
Travel		350,016	339,628
Foreign exchange (gain)/loss		(979,894)	542,664
		38,710,448	19,426,720
Finance Income (cost):			
Interest		288,300	17,442
Gain (Loss) on change in fair value of warrants	2(h), 5(a), 6	17,095,220	(13,133,671)
Warrant liability issue cost		(1,312,344)	(1,044,035)
		16,071,176	(14,160,264)
Net and Comprehensive Loss For The Year		**$ 22,639,272**	**$ 33,586,984**
Basic and Diluted Loss Per Share		**$ (1.36)**	**$ (4.25)**
Weighted Average Number of Common Shares, Basic and Diluted		**16,635,092**	**7,899,443**

See notes to financial statements

TITAN MEDICAL INC.
Statements of Cash Flows
For the Years Ended December 31, 2018 and 2017
(In U.S. Dollars)

	Year Ended December 31, 2018	Year Ended December 31, 2017
Cash provided by (used in):		
Operating activities:		
Net loss for the year	$ (22,639,272)	$ (33,586,984)
Items not involving cash:		
Amortization	29,041	17,360
Stock based compensation	1,505,625	1,439,352
Other share compensation	66,234	120,171
Warrant liability-fair value adjustment	(17,095,220)	12,423,889
Warrant liability-foreign exchange adjustment	(984,462)	305,475
Loss on extinquishment of other liabilities	—	709,782
Changes in non-cash working capital items:		
Amounts receivable, prepaid expenses and deposits	(6,508,259)	(504,056)
Accounts payable and accrued liabilities	4,229,536	(13,849)
Cash used in operating activities	(41,396,777)	(19,088,860)
Financing activities:		
Net proceeds from issuance of common shares and warrants	27,158,114	41,084,278
Cash provided by financing activities	27,158,114	41,084,278
Investing Activities:		
Increase in furniture and equipment	—	(3,427)
Cost of Patents	(420,587)	(201,409)
Cash used in investing activities	(420,587)	(204,836)
Increase (decrease) in cash and cash equivalents	(14,659,250)	21,790,582
Cash and cash equivalents, beginning of year	26,130,493	4,339,911
Cash and cash equivalents, end of year	$ 11,471,243	$ 26,130,493
Cash and cash equivalents comprise:		
Cash	$ 100,130	$ 354,295
Cash Equivalents	11,371,113	25,776,198
	$ 11,471,243	$ 26,130,493

See notes to financial statements

1. *DESCRIPTION OF BUSINESS*

Nature of Operations:

Titan Medical Inc's (the "Company") 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 financial statements for the year ended December 31, 2018 and December 31, 2017 have been prepared in accordance with International Accounting 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, 2019.

(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 and the remeasurement of unlisted warrant liabilities. While management believes that the estimates and assumptions are reasonable, actual results may differ.

These financial statements have been prepared in accordance with accounting principles applicable to going concern, which contemplates that the Company will be able to realize its assets and settle its liabilities in the normal course as they come due during the normal course of operations for the foreseeable future. The Company has shareholders' deficiency of $172,937,694 and current losses of $22,639,272. The Company currently does not generate any revenue (other than interest income on its cash balances) and accordingly it is primarily dependent upon equity financing for any additional funding required for development and operating expenses. The Company expects that approximately US $45 million in incremental funding is needed, 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. These conditions indicate the existence of a material uncertainty that

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

may cast significant doubt on the ability of the Company to continue as a going concern if additional funding is notsecured. 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) Cash and Cash Equivalents

Cash and cash equivalents include cash balances and amounts on deposit in interest saving account and short-term promissory notes expiring January 30, 2019 with interest rates ranging from 2.18% to 2.32%.

(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 follow:

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.

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

(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. 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 warrants issued are not a fixed amount as they are denominated in a currency (Canadian dollars) other than the Company's functional currency (U.S. dollar), as well as the warrants issued August 10, 2018 with the cashless exercise options, 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, 2018, the Warrant Liability of listed warrants was adjusted to fair value measured at the market price of the listed warrants and 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 and at December 31, 2018 and December 31, 2017 is based on level 1, quoted prices (unadjusted) for listed warrants and level 2 for unlisted warrants.

(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.

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

(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.

(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 925,782 outstanding stock options (December 31, 2017 – 591,609) and 13,901,859 warrants, (December 31, 2017– 5,108,588) 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 non-refundable 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

Financial assets include cash and cash equivalents, and amounts receivable which are measured at amortized cost. Amounts receivable include HST recoverable and other receivables. Financial liabilities include accounts payable and accrued 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.

(In U.S. Dollars)

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

(r) Standards, Amendments and Interpretations Not yet Effective

Following is a listing of amendments, revisions and new IFRS standards, which have been issued but not effective until annual periods beginning after December 31, 2018.

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

Management believes the new standard, effective January 1, 2019 will not have a material impact on future results and Financial Position of the Company.

Adoption Of New Accounting Standard

IFRS 9 Financial Instruments

Effective January 1, 2018, the Company adopted IFRS 9 Financial Instruments (IFRS 9) which replaced IAS 39, Financial Instruments: Recognition and Measurement (IAS 39). IFRS 9 includes revised guidance on the classification and measurement of financial assets and liabilities; new guidance for measuring impairment on financial assets; and new hedge accounting guidance.

On adoption of IFRS 9, the Company has classified the financial assets and financial liabilities held at January 1, 2018, based on the new classification requirements and the characteristics of each financial instrument as at the transition date. The new classification did not require a restatement of prior periods.

The following table shows the original classification under IAS 39 and the new classification under IFRS 9 for each of the Company's financial assets and financial liabilities at January 1, 2018, (there is no change to the carrying amounts of the financial instruments from this change).

Financial Instrument	IAS 39 Classification	IFRS 9
Financial Asset		
Cash and cash equivalents	Loans and receivables	Amortized cost
Amounts receivable	Loans and receivables	Amortized cost
Financial Liabilities		
Accounts payable and accrued liabilities	Other financial liabilities	Amortized Cost

3. FURNITURE AND EQUIPMENT

	Computer Equipment	Furniture and Fixtures	Leasehold Improvements	Total
Cost				
Balance at December 31, 2017	$ 83,880	$ 261,483	$ 172,601	$517,964
Additions	—	—	—	—
Balance at December 31, 2018	$ 83,880	$ 261,483	$ 172,601	$517,964
Amortization & Impairment Losses				
Balance at December 31, 2017	$ 77,166	$ 261,483	$ 172,601	$511,250
Amortization for the year	6,714	—	—	6,714
Balance at December 31, 2018	$ 83,880	$ 261,483	$ 172,601	$517,964
Net Book Value				
At December 31, 2017	$ 6,714	$ —	$ —	$ 6,714
At December 31, 2018	$ —	$ —	$ —	$ —

4. PATENT RIGHTS

Cost	
Balance at December 31, 2017	$ 978,126
Additions	420,587
Balance at December 31, 2018	$1,398,713
Amortization & Impairment Losses	
Balance at December 31, 2017	$ 203,901
Amortization for the period	22,327
Balance at December 31, 2018	$ 226,228
Net Book Value	
At December 31, 2017	$ 774,225
At December 31, 2018	$1,172,485

5. *SHARE CAPITAL*

a) **Authorized:** unlimited number of common shares, no par

Issued: 21,675,849 (December 31, 2017: 12,686,723)

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

On June 19, 2018 a share consolidation of 1:30 was completed and the Company's outstanding common shares were adjusted from 419,888,250 to 13,996,275. All references to the common shares, warrants and stock options, prior to June 20, 2018, have been updated in the notes to reflect the 1:30 reverse stock split.

On August 10, 2018 Titan Completed an offering of securities made pursuant to an agency agreement dated August 7, 2018 between the Company and Bloom Burton Securities Inc. (the "Agent"). The Company sold 7,679,574 Units under the Offering at a price of US $2.50 per Unit for gross proceeds of approximately $19,198,935 ($17,464,711 net

5. SHARE CAPITAL (continued)

of closing cost including cash commission of $1,343,925). 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 US $3.20 and expiring August 10, 2023. The warrants were valued at $6,297,251 based on the value determined by the Black-Scholes model and the balance of $12,901,684 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 537,570 Common Shares at a price of USD $2.50 per share prior to expiry on August 10, 2020.

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 Company sold 1,126,664 Units under the Offering at a price of CDN $9.00 per Unit for gross proceeds of approximately $8,035,941 ($7,211,320 net of closing costs including cash commission of $562,516). 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 $10.50 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.

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 78,867 Common Shares at a price of CDN $9.00 per share prior to expiry on April 10, 2020.

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 $9.00 per Unit completed on April 10, 2018 was exercised and the Company sold an additional 168,888 Units at the offering price for additional gross proceeds of $1,189,856 ($1,100,238 net of closing costs including cash commission of $76,988). 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 $10.50 and expiring April 10, 2023. The warrants were valued at $658,387 based on the value determined by the Black-Scholes model and the balance of $531,469 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 10,928 Common Shares at a price of CDN $9.00 per share prior to expiry on April 10, 2020.

During the year ended December 31, 2017, 1,755,141 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 Company sold 1,533,333 Units under the Offering at a price of CDN $15.00 per Unit for gross proceeds of approximately $18,137,800 ($16,555,875 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 $18.00 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.

5. *SHARE CAPITAL* (continued)

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 105,350 Common Shares at a price of CDN $15.00 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. 446,197 common shares of Titan were issued at a subscription price of CDN $7.50 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 Company sold 1,612,955 Units under the Offering at a price of CDN $4.50 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 $6.00 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 109,533 Common Shares at a price of CDN $4.50 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 Company sold an additional 370,567 Units under the Offering at a price of CDN $4.50 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 $6.00 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 25,940 Common Share at a price of CDN $4.50 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 Company sold 715,573 Units under the Offering at a price of CDN $10.50 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 $12.00 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 $15.00 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 50,005 Common Shares at a price of CDN $10.50 per share prior to expiry on March 16, 2019.

(In U.S. Dollars)

5. *SHARE CAPITAL* (continued)

On November 23, 2015 Titan closed a private placement of 143,009 Common Shares to Longtai Medical Inc. at a subscription price of CDN $36.90 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 563,067 Units at an assigned issue price of CDN $4.50 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 $6.00 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 $4.20. 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 December 31, 2018, 1,241,803 common shares (December 31, 2017: 677,063) 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, 2018 and December 31, 2017 and changes during the periods ended on those dates is presented in the following table:

	Year Ended December 31, 2018		Year Ended December 31, 2017	
	Number of Stock Options	Weighted-average Exercise Price (CDN)	Number of Stock Options	Weighted-average Exercise Price (CDN)
Balance Beginning	591,609	$ 21.30	240,075	$ 33.00
Granted	372,866	$ 11.97	394,830	$ 15.60
Expired/Forfeited	(38,693)	$ 24.90	(43,296)	$ 34.80
Balance Ending	**925,782**	**$ 17.32**	**591,609**	**$ 21.30**

(In U.S. Dollars)

5. *SHARE CAPITAL* (continued)

The weighted-average remaining contractual life and weighted-average exercise price of options outstanding and of options exercisable as at December 31, 2018 are as follows:

Options Outstanding

Exercise Price (CDN)	Number Outstanding	Weighted-average remaining contractual life (years)	Options Exercisable
$ 2.09	50,349	3.00	50,349
$ 3.28	31,498	6.67	31,498
$ 4.50	18,935	4.54	18,935
$ 4.80	3,040	1.71	3,040
$ 7.49	5,590	6.52	5,590
$ 9.00	11,481	6.52	11,481
$ 9.60	1,105	1.77	1,105
$ 11.70	6,667	1.93	6,667
$ 12.00	1,948	1.93	1,948
$ 12.90	50,000	5.30	12,500
$ 14.40	18,950	5.86	4,737
$ 15.00	16,667	5.11	4,167
$ 15.00	273,948	6.06	—
$ 17.10	277,519	5.05	69,380
$ 30.00	105,719	2.65	81,462
$ 30.60	6,120	1.98	6,120
$ 32.40	18,810	2.08	18,810
$ 41.70	658	0.96	658
$ 45.30	560	1.61	560
$ 51.60	15,371	1.44	15,371
$ 58.20	10,847	0.39	10,847
	925,782	**4.82**	**355,225**

The weighted average exercise price of options outstanding is CDN $17.32 and CDN $18.84 for options that are exercisable. Since the December 18, 2018 options issued to consultants have an exercise price of USD $1.55, they have been converted at the December 18, 2018 close rate of 1.3461 or CDN $2.09.

(In U.S. Dollars)

5. ***SHARE CAPITAL*** (continued)

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 17, 2017, option grants to Employees	277,519	Vest as to ¼ of the total number of Options granted, every year from Option Date	7 years
February 7, 2017 option grants to Employees	16,667	Vest as to 1/4 of the total number of Options granted, every year from Option Date	7 years
April 17, 2017, option grants to Employees	50,000	Vest as to 1/4 of the total number of Options granted, every year from Option Date	7 years
September 7, 2017, options granted to Consultants	6,667	Half vest in 3 months and the remaining half in 6 months	3 years
September 7, 2017, options granted to Directors	12,269	immediately	7 years
September 15,2017, options granted to Consultants	3,040	immediately	3 years
October 6, 2017, options granted to Consultants	1,105	immediately	3 years
November 8, 2017 option grants to Employees	18,950	Vest as to 1/4 of the total number of Options granted, every year from Option Date	7 years
December 4, 2017, options granted to Consultants	1,948	immediately	3 years
December 4, 2017, options granted to Consultants	6,667	Half vest immediately and the remaining half in 12 months	3 years
January 19, 2018 option grants to Employees	273,948	Options will vest the earlier of commercialization or 3 years from grant date	7 years
July 6, 2018, options granted to Directors	17,071	immediately	7 years
August 29, 2018, options granted to Directors	31,498	immediately	7 years
December 18, 2018, options granted to Consultants	50,349	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:

	2018	2017
Fair Value at grant date (CDN)	$ 5.99	$ 8.70
Share price at grant date (CDN)	$ 10.79	$ 14.75
Exercise price (CDN)	$ 11.97	$ 15.52
Expected Volatility	90.12%	83.20%
Option Life	3 years	3-4 years
Expected dividends	nil	nil
Risk-free interest rate (based on government bonds)	1.90%	1.06%

(In U.S. Dollars)

5. ***SHARE CAPITAL*** (continued)

The following is a summary of outstanding warrants included in Shareholder's Equity as at December 31, 2018 and December 31, 2017 and changes during the periods then ended.

	December 31, 2018		December 31, 2017	
	Number of Warrants	Amount	Number of Warrants	Amount
Opening Balance	175,357	$ 741,917	188,381	$ 855,800
Expired during the year				
Exercise Price CDN $1.25				
Expiry March 18, 2018	(175,357)	(741,917)	—	—
Expired during the year				
Exercise Price CDN $1.77				
Expiry March 14, 2017	—	—	(13,024)	(113,883)
Ending Balance	**—**	**$ —**	**175,357**	**$ 741,917**

6. ***WARRANT*** **LIABILTY**

	December 31, 2018		December 31, 2017	
	Number of Warrants	Amount	Number of Warrants	Amount
Opening Balance	4,933,231	$ 17,849,460	2,581,703	$ 2,365,691
Issue of warrants expiring, March 16, 2019	—	—	357,787	572,326
Issue of warrants expiring, March 16, 2021	—	—	357,787	725,484
Issue of warrants expiring, June 29, 2022	—	—	1,983,521	3,364,118
Issue of warrants expiring, August 24, 2022	—	—	563,067	822,372
Issue of warrants expiring, December 5, 2022	—	—	1,533,333	5,223,686
Issue of warrants expiring, April 10, 2023	1,295,554	5,212,087	—	—
Issue of warrants expiring, August 10, 2023	7,679,574	6,297,251		
Warrants exercised during the year	(6,500)	(28,949)	(1,755,141)	(7,953,581)
Warrants expired during the year	—		(688,826)	—
Foreign exhange adjustment during the year		(984,462)	—	305,475
Fair value adjustment during the year		(17,095,220)		12,423,889
Ending Balance	13,901,859	$ 11,250,167	4,933,231	$17,849,460

In addition to the warrants listed above, at December 31, 2018, the Company has issued, outstanding and exercisable, 786,183 broker unit warrants expiring between March 16, 2019 and August 10, 2020 (2017 – 272,650 broker unit warrants expiring between February 23, 2018 and December 5, 2019).

(In U.S. Dollars)

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% (2017 – 26.5%).

	December 31, 2018	December 31, 2017
Net Loss before income taxes	$ (22,639,272)	$ (33,586,984)
Income taxes at statutory rates	$ (5,999,407)	$ (8,900,551)
Tax effect of expenses not deductible for income tax purposes:		
Tax/FX rate changes and other adjustments	—	(27,053)
Permanent differences	(4,374,564)	3,975,072
Unrecognized share issue costs	(354,072)	(554,252)
Total tax recovery	(10,728,043)	(5,506,784)
Tax recovery not recognized	10,728,043	5,506,784
	$ —	$ —

b) Deferred Income Taxes

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

	December 31, 2018	December 31, 2017
Non-Capital Losses	$ 47,679,897	$ 37,012,271
Qualifying Research and Development expenditures	1,493,309	1,493,309
Share issue costs and other	1,622,533	1,562,116
Total tax assets	50,795,739	40,067,696
Tax assets not recognized	(50,795,739)	(40,067,696)
Net deferred tax assets	$ —	$ —

In assessing the realizability of deferred tax assets, management considers whether it is probable that some 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.

(In U.S. Dollars)

7. ***INCOME TAXES*** (continued)

c) Losses carried forward

The Company has non-capital losses of approximately $179,924,139 available to reduce future income taxes. Thenon-capital losses expire approximately as follows:

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
2038	40,255,192
	$179,924,139

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 Canada Revenue Agency (CRA) audit 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, 2018 the Company has $1,167,560 (2017—$1,167,560) 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 amounts have been adjusted to reflect changes due to the CRA audit.

At December 31, 2018 the Company has $237,997 (2017—$237,997) of unclaimed Ontario Research and Development Tax Credit available to reduce Ontario income taxes payable in future years. If not utilized, this credit will start expiring in 2029. The amounts have been adjusted to reflect changes due to the CRA audit.

8. ***COMMITMENTS***

Effective November 30, 2018 the Company's Ancaster, Canada lease and sublease which was to expire January 31, 2019 were terminated. This space was leased at CDN $4,673 per month and sublet for CDN $4,099 per month.

The corporate office is located at 170 University Avenue, Toronto, Canada. Effective October 30, 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. On November 12, 2018 the lease was amended to reduce the square footage leased from 2,750 to 1,495, reducing the monthly rent to CDN $5,419.

(In U.S. Dollars)

8. ***COMMITMENTS*** (continued)

As 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, 2018 $12,756,962 in purchase orders remain outstanding (2017—$4,742,928). The Company also has on deposit with this same U.S. supplier $8,541,630 to be applied against future invoices (2017— $2,172,943).

9. **RELATED PARTY TRANSACATIONS**

During the year ended December 31, 2018, transactions between the Company 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 $1,552,367 for the year ended December 31, 2018 compared to $1,587,667 for the year ended December 31, 2017.

Officers and Directors of the Company control approximately 0.30% of the Company

	December 31, 2018		December 31, 2017	
	Number of Shares	%	Number of Shares	%
John Barker	31,714	0.15	23,715	0.19
Martin Bernholtz	—	—	102,383	0.81
David McNally	4,167	0.02	1,667	0.01
Stephen Randall	21,643	0.10	11,910	0.09
John Schellhorn	294	—	294	—
Bruce Wolff	7,610	0.03	2,010	0.02
Total	**65,428**	**0.30**	**141,979**	**1.12**
Common Shares Outstanding	**21,675,849**	**100%**	**12,686,723**	**100%**

10. FINANCIAL INSTRUMENTS

The Company's financial instruments consist of cash and cash equivalents, amounts receivable and accounts payable and accrued liabilities. 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 interest saving account and short-term promissory notes. 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, 2018, the Company had cash and cash equivalents of $11,471,243 (December 31, 2017 - $26,130,493) to settle current liabilities of $6,447,888 (December 31, 2017—$2,218,352) excluding warrant liabilities of $11,250,167 (December 31, 2017 – $17,489,460).

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 $45 million, in incremental funding will be required for fiscal 2019 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 interest savings accounts and short-term promissory notes. The Company periodically monitors the investments it makes and is satisfied with the credit risk of its bank.

(In U.S. Dollars)

10. FINANCIAL INSTRUMENTS (continued)

(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 interest savings account and short-term promissory notes. Sensitivity to a plus or minus 1% change in interest rates could affect annual net loss by $113,711 (December 31,2017—$257,762) based on the current level of cash invested in cash equivalents.

A strengthening of the U.S. dollar at December 31, 2018, as indicated below, against Canadian current assets and accounts payable and accrued liabilities including warrant liability of CDN $277,228 and $5,520,457 respectively (December 31, 2017—$509,371 and $22,813,047) would result in increased equity and an increased profit for the period of $192,059 (December 31, 2017, increased equity and an increase profit of $888,913) 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, 2017.

December 31, 2018	**Profit of (Loss)**
5% strengthening	
CDN Current assets	$ (10,155)
CDN Accounts payable and accrued liabilities	$ 202,214
	$ 192,059
December 31, 2017	
5% strengthening	
CDN Current assets	$ (20,301)
CDN Accounts payable and accrued liabilities	$ 909,214
	$ 888,913

A weakening of the U.S. dollar against the Canadian dollar at December 31, 2018 and December 31, 2017 would have had the equal but opposite effect on the above currencies to the amount shown above, on the basis that all other variables remain constant.

11. SEGMENTED REPORTING

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

12. CAPITAL MANAGEMENT

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 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, 2018. The Company is not subject to externally imposed capital requirements.

13. EVENTS AFTER THE REPORTING DATE

During the first quarter of 2019, 619,606 warrants had been exercised for gross proceeds of $1,982,739.

TITAN MEDICAL INC.

MANAGEMENT'S DISCUSSION AND ANALYSIS

FOR THE YEAR ENDED DECEMBER 31, 2018

(IN UNITED STATES DOLLARS)

This Management's Discussion and Analysis ("MD&A") is dated February 13, 2019.

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, 2018 (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, 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 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's technology and research and development objectives and milestones, including such development milestones as achieving design freeze, 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 and human cadaver studies;
- the Company's expectation that it can in a timely manner produce the appropriate preclinical and clinical data required for a 510(k) application to the U.S. Food and Drug Administration, and Technical File for the CE Mark;
- 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 formative and summative human factors studies;
- the Company's belief that existing and planned prototype units will be suitable to support human factors studies, preclinical evaluation and activities related to securing confirmatory human data during 2019;
- the Company's intentions with respect to initiating marketing activities following receipt of the applicable regulatory approvals;
- 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 expectation that it will be able to finance its continuing operations by accessing public markets for its securities;
- the Company's intended use of proceeds of any offering of securities;
- 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 Company's projected competitive conditions with respect to its products;
- the Company's technology and research and development objectives, including such development milestones as completing the engineering confidence build and achieving design freeze, estimated costs, schedules for completion and probability of success;

- 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 that it will continue its pursuit of key strategic relationships;
- the Company's continuing efforts to secure its intellectual property and 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 plan to focus on the development and commercialization of the SPORT Surgical System at estimated incremental costs and according to a given timeline; and
- the Company intends to utilize a direct sales force and/or distribution partner(s) to initiate marketing the SPORT Surgical System to hospitals.

Although the Company believes the expectations expressed in such forward-looking statements are based on reasonable assumptions, such statements are no 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, dependency on additional financing, the Company's history of losses, reliance on strategic alliances, the ability to retain key personnel in a highly-competitive employment environment, the possibility of the Company's inability to augment its management team when required, the possibility that the Company's trade secrets and confidential information may be compromised, reliance on third parties for important aspects of the Company's business, uncertainty as to product development and commercialization milestones, results of operations, competition, technological advancements, rapidly changing markets, uncertain market for the Company's products and technology, uncertainty as to the enforceability of the Company's intellectual property, infringement of intellectual property rights of others, 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 market conditions and demands and preferences, changes in government policy, exposure to product liability claims, 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, uncertainty as to the Company's ability to meet its development and commercialization milestones, uncertainties as to development and manufacturing of a commercially viable product, reliance on external suppliers and development firms, fluctuations in the market prices of the Company's securities, possible future sales by the Company's shareholders of their securities, limited operating history of the Company, the development stage of the Company and its lack of revenues or earnings, fluctuations of the Company's financial results, the possibility that the Company is not able to maintain its "foreign private issuer" status, and the possibility of delisting from the Nasdaq or TSX exchanges.

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

During the year ended December 31, 2018 the Company raised gross proceeds of $28,424,732 ($25,776,269 net of closing cost including cash commission of $1,983,429). The Company generated a net los of $22,639,272, which included research and development expenditures of $32,858,339 and a gain on the change in fair value of warrants of $17,095,220.

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 developing the SPORT Surgical System, a single-port robotic surgical system 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 with input from surgeons and operating room staff experienced in minimally invasive surgery and, consultation with medical technology development firms and input from the Company's Surgeon Advisory Board (the "Surgeon Advisory Board") comprised of surgeons who specialize in minimally invasive surgery. 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, with the intent that the system will appeal to a broader array of surgeons than systems that do not provide such adjustability.

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 an integrated 2D wide-angle camera module that once inserted, provides visualization for optimal positioning of the camera insertion tube by the bedside assistant under the guidance of the surgeon. Once the camera insertion tube is inserted and positioned in the body, a separate steerable, 3D high definition endoscopic camera 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 is developing a robust training curriculum and post-training assessment tools for surgeons and surgical teams. The proposed training curriculum is planned to 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. On September 18, 2018, the Company announced the successful completion of 14 core surgical skills simulation modules for use with the SPORT Surgical System surgeon workstation. The successful demonstration and delivery of these modules was a significant development in the first phase of the comprehensive surgeon training curriculum that the Company is planning for its SPORT Surgical System.

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, 2018, the Company had ownership of 29 patents and 73 patent applications. The Company has accelerated the filing and prosecution of patents that management believes will validate the novelty of its unique technology, and in turn, support the value of the entire franchise. Early evidence of success with this initiative has been the rapid growth of its patent portfolio from 12 issued patents at December 31, 2016 to 29 issued patents as of December 31, 2018. The Company anticipates further expanding its patent portfolio by filing additional patent applications as it progresses in the development of robotic surgical technologies and potentially, 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 and 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, manufacturable product, or one that is approved by regulatory authorities.

Previously, for the year ended 2017, the Company achieved all of its milestones as published in the Company's Annual Information Form for the 2017 fiscal year. The Company continued this trend of accomplishment through the year ended 2018, again completing all of its published milestones: (1) planning of software development and product upgrades including improvements to the workstation, patient cart, instruments, camera, light source and disposable components; (2) demonstration of the first two modules of its simulation software; (3) prototyping, testing and procurement of surgeon feedback on revised workstation controls; (4) completion of software and hardware change requirements and finalization of computer and software architecture for production systems; (5) completion of revisions to instrument and lens wash system and demonstration of performance; (6) completion of a camera insertion tube engineering confidence build based on an improved design; (7) completion of the design of the SPORT Surgical System workstation and patient cart for engineering confidence build; (8) completion and demonstration of a full suite of simulation software for beta test; and (9) completion of the SPORT Surgical System capital equipment engineering confidence build based on the improved design requirements.

As previously announced, the Company selected three Centers of Excellence (strategic facilities) for preclinical studies in the U.S. and Europe, which are:

- Florida Hospital Nicholson Center in Celebration, Florida;
- Columbia University Medical Center in New York, New York; and
- Institut Hospitalo-Universitaire de Strasbourg ("IHU Strasbourg") in Strasbourg, France.

Ahead of its published milestone, on September 25, 2017, the Company announced the 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. Since that time, the Company has announced that surgeons have completed critical surgical tasks integral to gynecologic procedures using advanced prototypes of the SPORT Surgical System at Columbia University Medical Center's surgical simulation center in New York, New York and at the Institute of Image-Guided Surgery at IHU Strasbourg.

To date, 12 experienced robotic surgeons from three continents have performed 43 live animal studies and two human cadaver studies. The studies performed include a broad array of procedures commonly performed by gynecologic, urologic, colorectal, bariatric, and general surgeons. The surgeons who performed these studies have prepared and submitted related abstracts for peer review, and have presentated at clinical education meetings, including:

1. **Multi-disciplinary applications of a new robotic platform** by Barbara Seeliger, MD and Lee Swanstrom, MD (IHU Strasbourg), accepted and presented as a poster at the Society of American Gastrointestinal and Endoscopic Surgeons Meeting, Seattle, WA. (April 2018);

2. **Single-port prostatectomy using SPORT Surgical System** by Eric Barret, MD (Institut Mutualiste Montsouris, France), accepted and presented as a poster at the EAU Section of Urology Technology Meeting, Modena, Italy, May 2018;

3. **Multispecialty single port robotic technology applied in the live animal model: proof of concept** by Travis Rogers, MD, Eduardo Parra Davila, MD, Vipul Patel, MD (all from Florida Hospital), Ricardo Estape, MD (South Miami GOG) and Armando Melani, MD (IRCAD Brazil), accepted and presented as a poster at the Society of Robotic Surgery Meeting, Stockholm, Sweden (June 2018);

4. **Feasibility of single-port partial nephrectomy using SPORT surgical system** by Eric Barret, MD (Institut Mutualiste Montsouris, France), accepted and presented as a poster at Society of Robotic Surgery Meeting, Stockholm, Sweden (June 2018);

5. **Single-port robotic partial and hemi nephrectomy using a novel single port robotic platform** by Sebastien Crouzet, MD (University of Lyon, France) and Barbara Seeliger, MD (IHU Strasbourg), accepted and presented at EAU Robotic Urology Section Meeting, Marseille, France (September 2018);

6. **Reverse Objective Structured Assessment of Technical Skills (Reverse-OSATS) as a means of measuring the capability of the Titan Medical SPORT Surgical System on core surgical principles** by Chetna Arora, MD, Arnold P. Advincula, MD (both from Columbia University Medical Center) and William B. Burke, MD (Stony Brook Cancer Center), accepted and presented at Society of European Robotic Gynecologic Surgeons Meeting, Milan, Italy (September 2018);

7. **Multispecialty single port robotic technology applied in the live animal model: proof of concept** by Travis Rogers, MD, Eduardo Parra Davila, MD, Vipul Patel, MD (all from Florida Hospital), Ricardo Estape, MD (South Miami GOG) and Armando Melani, MD (IRCAD Brazil), accepted and presented at World Congress of Endourology Meeting, Paris, France (September 2018);

8. **Feasibility of single-port partial nephrectomy using SPORT surgical system** by Eric Barret, MD (Institut Mutualiste Montsouris, France) Accepted and presented at World Congress of Endourology Meeting, Paris, France, September 2018; and

9. **Reverse Objective Structured Assessment of Technical Skills (Reverse-OSATS) as a means of measuring the capability of the Titan Medical SPORT Surgical System on core surgical principles** by Chetna Arora, MD, Arnold P. Advincula, MD (both from Columbia University Medical Center) and William B. Burke, MD (Stony Brook Cancer Center), accepted at American Association of Gynecologic Laparoscopists World Congress, Las Vegas, NV (November 2018).

Further, several of these surgeons collaborated to author a manuscript that was published January 2019 in the highly-regarded, peer-reviewed journal *Surgical Endoscopy*: and is titled **Enabling single-site laparoscopy: the SPORT platform** by Barbara Seeliger[1] · Michele Diana[1] · Jelle P. Ruurda[2] · Konstantinos M. Konstantinidis[3] · Jacques Marescaux[1] · Lee L. Swanström[1,4]

1 IHU-Strasbourg Institute of Image-Guided Surgery, 1, place de l'Hôpital, 67091 Strasbourg Cedex, France
2 Department of Surgical Oncology, University Medical Center, Utrecht, Utrecht, Netherlands
3 Department of General, Bariatric, Laparoscopic and Robotic Surgery, Athens Medical Center, Athens, Greece
4 Division of GI/MIS, The Oregon Clinic, Portland, OR, USA

Selected Annual Information

The following table summarizes selected financial data reported by the Company for the years ended December 31, 2018, 2017 and 2016 in accordance with IFRS. The information set forth should be read in conjunction with the respective audited financial statements.

	2018	2017	2016
Net Sales	—	—	—
Net and comprehensive loss for the year	$22,639,272	$33,586,984	$23,323,496
Basic & diluted loss per share	$ 1.36	$ 4.25	$ 4.80
Total long-term liabilities	—	—	—
Total Assets	$21,915,164	$29,674,610	$ 7,192,496
Dividends	—	—	—

Significant changes in key financial data from 2016 to 2018 can be attributed to the availability of equity financing, the fluctuations of the fair value of warrants and expenditures in connection with the development of the Company's robotic surgical system.

Discussion of Operations

The Company incurred a net and comprehensive loss of $22,639,272 during the year ended December 31, 2018, compared with a net and comprehensive loss of $33,586,984 for the year ended December 31, 2017. This decrease in net and comprehensive loss for the year is primarily attributed to a large gain from the change in fair value of warrants in 2018 compared to a loss in 2017, which was partially offset by substantially higher research and development expenditures in 2018 compared to 2017. In addition, foreign exchange gain in the year ended December 31, 2018, was $979,894, compared to a loss of $542,664 for the year ended December 31, 2017. This change in foreign exchange of $1,522,558 is primarily attributable to the foreign exchange on warrants, a gain of $984,462 in 2018 compared to a loss of $305,475 in 2017.

During the year ended December 31, 2018, the Company continued to support strategic product development and manufacturing relationships with qualified subcontractors, carrying on efforts to globally secure the Company's intellectual property through the patent and licensing process, and continue the development of the Company's robotic surgical system.

Research and development expenditures (all of which were expensed in the period), for the years ended December 31, 2018 and December 31, 2017, respectively, were as follows:

Research and Development Expenditures	Year Ended December 31, 2018	Year Ended December 31, 2017
Intellectual property development	$ 14,540	$ 25,704
License and royalties	—	43,575
Product development	32,843,799	12,831,576
Total	$ 32,858,339	$ 12,900,855

Research and development expenditures increased in the year ended December 31, 2018 compared to the same period in 2017. This increase was primarily due to an increase in available funding in 2018 that allowed the Company to accelerate product development in 2018, compared to 2017.

Excluding foreign exchange, general and administrative expenses for the year ended December 31, 2018, were $6,832,003 compared to $5,983,201. The increases in general and administrative expenses during the comparative periods are attributed to increases in insurance, consulting fees, incremental salaries of personnel added after the beginning of 2017, management and administrative salaries, professional fees and office and general expenses.

The gain attributed to the change in fair value of warrants for the year ended December 31, 2018 was $17,095,220 compared to loss of $13,133,671 for the same period in 2017. The change of $30,228,891 reflects a significant decrease in the fair value of warrants in 2018 compared to 2017.

The Company realized $288,300 of interest income on its cash and cash-equivalent balances during the year ended December 31, 2018, and $17,442 for the same period in 2017. This increase in interest income is primarily attributed to substantially higher cash balances in its money market account in 2018 compared to 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 and calculated in accordance with IFRS. Basic and diluted loss per share figures are calculated on the basis of the 30:1 consolidation of common shares.

	Three Months Ended December 31, 2018	Three Months Ended September 30, 2018	Three Months Ended June 30, 2018	Three Months Ended March 31, 2018	Three Months Ended December 31, 2017	Three Months Ended September 30, 2017	Three Months Ended June 30, 2017	Three Months Ended March 31, 2017
Net sales	—	—	—	—	—	—	—	—
Net and Comprehensive Loss (gain) from operations	$8,410,702	$7,534,456	$5,885,415	$808,699	$12,829,980	$13,902,817	$1,865,913	$4,988,274
Basic and diluted loss per share	$ 0.41	$ 0.41	$ 0.47	$ 0.07	$ 1.20	$ 1.80	$ 0.30	$ 0.90

Significant changes in key financial data from the three months ended March 31, 2017 through the three months ended December 31, 2018 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.

During the fourth quarter of 2018, the Company had a net and comprehensive loss of $8,410,702 compared to a loss of $12,829,980 for the same period in 2017. This decrease in loss of $4,419,278 is primarily attributed to a gain in the change in fair value of warrants in 2018 of $7,166,276 compared to a loss of $7,407,114 in 2017, which was offset by substantially higher research and development expenditures in 2018 of $14,194,003 compared to $3,188,783 in 2017.

Liquidity and Capital Resources

The Company currently does not generate any revenue (other than interest income on its cash balances) and accordingly it is primarily dependent upon equity financing for any additional funding required for development and operating expenses. The Company expects that approximately US $45 million in incremental funding is needed, 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. These conditions indicate the existence of a material uncertainty that may cast significant doubt on the ability of the Company to continue as a going concern if additional funding is not secured. 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.

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 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. 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, or loss of their investment.

The Company had $11,471,243 of cash and cash equivalents on hand and accounts payable and accrued liabilities of $6,447,888 excluding warrant liability, at December 31, 2018, compared to $26,130,493 and $2,218,352 respectively, at December 31, 2017. The Company's working capital as at December 31, 2018 was $14,294,791 excluding warrant liability, compared to $26,675,319 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. The chart has been updated to reflect the number of warrants issued and outstanding post 30:1 consolidation, as at June 30, 2018.

	Issue Date	Expiry Date	Number Issued	Number Outstanding	Exercise Price (CDN $)
TMD.WT.F	November 16, 2015	November 16, 2020	233,740	233,740	$ 48.00
TMD.WT.G	February 12, 2016	February 12, 2021	389,027	386,694	$ 30.00
TMD.WT.G	February 23, 2016	February 12, 2021	58,226	58,226	$ 30.00
TMD.WT.H	March 31, 2016	March 31, 2021	501,831	501,831	$ 36.00
TMD.WT.H	April 14, 2016	March 31, 2021	75,275	75,275	$ 36.00
TMD.WT.I	September 20, 2016	September 20, 2021	569,444	569,444	$ 22.50
TMD.WT.I	October 27, 2016	September 20, 2021	67,667	67,667	$ 22.50
NOT LISTED	March 16, 2017	March 16, 2019	357,787	135,824	$ 12.00
NOT LISTED	March 16, 2017	March 16, 2021	357,787	355,253	$ 15.00
NOT LISTED	June 29, 2017	June 29, 2022	1,612,955	75,810	$ 6.00
NOT LISTED	July 21, 2017	June 29, 2022	370,567	370,567	$ 6.00
NOT LISTED	August 24, 2017	August 24, 2022	563,067	563,067	$ 6.00
NOT LISTED	December 5, 2017	December 5, 2022	1,533,333	1,533,333	$ 18.00
NOT LISTED	April 10, 2018	April 10, 2023	1,126,665	1,126,665	$ 10.50
NOT LISTED	May 10, 2018	April 10, 2023	168,889	168,889	$ 10.50
*NOT LISTED	August 10, 2018	August 10, 2023	7,679,574	7,679,574	$ 4.15
TOTAL			15,665,834	13,901,859	

* The exercise price of the August 10, 2018 warrants is US $3.20. For conformity, because the other warrants in this table are in CDN dollars, the exercise price and potential proceeds in respect of the August 10, 2018 warrants have been converted to CDN dollars using the Bank of Canada rate on August 3, 2018 of US $1.00 = CDN $1.2983.

Commitments

As 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, 2018, $12,756,962 in purchase orders remain outstanding. The Company also has on deposit with the same U.S supplier $8,541,630 to be applied against future invoices.

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. Accordingly, product development was accelerated in 2018 in preparation for commercial manufacturing, including hardware and software development at all levels, involving the workstation, patient cart, cameras and light source, instruments, and disposable components that facilitate successful surgery. Product improvements were completed and implemented in a capital equipment engineering confidence build of an improved prototype in December of 2018 and are expected to be followed by system performance evaluation in early 2019.

Initial product development, including software integration, will be completed before design freeze and proceeding with summative evaluation usability tests with the final product and validation studies required for supporting 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 2018, the Company confirmed with the Food and Drug Administration of the United States Department of Health and Human Services (the "FDA"), that confirmatory human data will be required for its planned regulatory submission. The performance of human surgeries with the SPORT Surgical System will require an Investigational Device Exemption ("IDE") from the FDA, which must be submitted and approved in advance. Further, the recruitment of surgeons from multiple hospital sites will be necessary to perform the surgeries. Each of these sites will require approval of their independent Institutional Review Board ("IRB") to approve the studies. During the first three quarters of 2019, the Company plans to pursue the recruitment of surgeons and hospitals for the studies, IDE approval by the FDA, and approvals by the IRB of each hospital, in preparation for the confirmatory human studies planned for completion during the fourth quarter.

A complete estimate of the timing and costs for development milestones beyond 2019 is speculative. The Company estimates that a minimum of US $64.1 million will be required to fund its operations in 2019. Based on the cash and cash equivalents on hand, including deposits with suppliers as at December 31, 2018, the Company believes that it will need to raise approximately $45 million to fund it operations in 2019. This includes projected capital resources necessary for the Company to submit its 510(k) application to the FDA and 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. If successful with those efforts, the Company expects to proceed with early commercialization activities in the U.S. in 2020. 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, 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 2019 is not possible at this time.

The Company's current plan is to raise sufficient financing and continue the development and commence 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 fourth quarter of 2019 to be as set out in the table below (the "Current Development Plan").

Milestone Number	*Development Milestones*	*Estimated Cost (in U.S. million $)*	*Schedule for Milestone Completion*	*Comments*
Milestone 1	Prototype, test and procure surgeon feedback on revised workstation controls		Q2 2018	*Completed*
	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			
Milestone 2	Complete Camera Insertion Tube (CIT) engineering confidence build based on improved design		Q3 2018	*Completed*
	Complete design of SPORT Surgical System surgeon workstation and patient cart for engineering confidence build			
	Complete and demonstrate full suite of simulation software for beta test			
Milestone 3	Complete SPORT Surgical System capital equipment engineering confidence build based on improved design		Q4 2018	Completed
Milestone 4	Document results of confidence build unit testing, implement subsystem design improvements and schedule preliminary audit of quality system by European Notified Body	16.0(1)	Q1 2019	
Milestone 5	Update system design and related hardware and software documentation	16.9(2)	Q2 2019	
	Verify production system operation with clinical experts under rigorous formal (summative) human factors evaluation under simulated robotic manipulation exercises			
	Initiate SPORT Surgical System Design Freeze			
	Initiate preclinical live animal (swine) and cadaver studies according to final protocols for FDA submittal			
	Submit Investigational Device Exemption (IDE) application to FDA			
	Submit draft protocols to FDA in Q-submission(s) for comment			*Completed*

Milestone Number	*Development Milestones*	*Estimated Cost (in U.S. million $)*	*Schedule for Milestone Completion*	*Comments*
Milestone 6	Complete and document preclinical live animal (swine) and cadaver studies according to final protocols for FDA submittal	16.1(3)	Q3 2019 –	
	Obtain ISO 13485 Certification			
	Receive IDE approval from FDA			
Milestone 7	Complete and document human confirmatory studies under IDE protocols for FDA submittal	15.1(4)	Q4 2019	
	Submit Technical File to European Notified Body for review for CE Mark			
	Submit 510(k) application to FDA			
	TOTAL	64.1		

Notes:

(1) Includes research and development costs estimated at approximately US $14.6 million, and general and administrative costs estimated at approximately US $1.4 million.
(2) Includes research and development costs estimated at approximately US $15.5 million, and general and administrative costs estimated at approximately US $1.4 million.
(3) Includes research and development costs estimated at approximately US $14.7 million, and general and administrative costs estimated at approximately US $1.4 million.
(4) Includes research and development costs estimated at approximately US $13.7 million, and general and administrative costs estimated at approximately US $1.4 million.

Upon completion of the development of the SPORT Surgical System and following receipt of applicable regulatory clearance in the United States, the Company intends to utilize a direct sales force and 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

On June 19, 2018 a share consolidation, on the basis of 30pre-consolidation common shares forming one post-consolidation common share, was completed and the Company's outstanding common shares ("Common Shares") were adjusted from 419,888,250 to 13,996,275. All references to Common Shares, warrants, and stock options have been updated in the notes to reflect the 1:30 share consolidation.

During the first quarter of 2019, 619,606 warrants had been exercised for gross proceeds of $1,982,739.

Offerings During Q3 2018

On August 10, 2018, the Company completed an offering of securities made pursuant to an agency agreement dated August 7, 2018 between the Company and Bloom Burton Securities Inc. ("Bloom Burton"). The Company sold 7,679,574 units under the offering price of $2.50 per unit for gross proceeds of approximately $19,198,935 ($17,464,711 net of closing cost including cash commission of $1,343,925). Each unit consisted of one Common Share of the Company and one Common Share purchase warrant, each warrant entitling the holder to acquire one Common Share at an exercise price of $3.20 and expiring August 10, 2023.

Offerings During Q2 2018

On April 10, 2018, the Company completed an offering of securities pursuant to an agency agreement dated April 3, 2018 between the Company and Bloom Burton. The Company sold 1,126,665 units under the offering at a price of CDN $9.00 per unit for gross proceeds of approximately $8,035,941 ($7,211,320 net of closing costs including cash commission of $562,516). Each unit consisted of one common share and one warrant, each warrant entitling the holder thereof to acquire one common share at an exercise price of CDN $10.50 and expiring April 10, 2023.

On May 10, 2018, the Company announced the exercise of the over-allotment option granted to Bloom Burton as agent for its offering, at a price of CDN $9.00 per unit, completed on April 10, 2018 and the Company sold an additional 168,889 units at the offering price for additional gross proceeds of $1,189,856 ($1,100,238 net of closing costs including cash commission of $76,988). Each unit consisted of one Common Share of the Company and one warrant, each warrant entitling the holder thereof to acquire one Common Share at an exercise price of CDN $10.50 and expiring April 10, 2023.

Offerings During Q4 2017

On December 5, 2017, the Company completed an offering of securities made pursuant to an agency agreement dated November 30, 2017 between the Company and Bloom Burton. The Company sold 1,533,333 units at a price of CDN $15.00 per unit for gross proceeds of approximately $18,137,800 ($16,555,875 net of closing costs including cash commission of $1,246,185). Each unit consisted of one common share and one warrant, each warrant entitling the holder thereof to acquire one additional common share at an exercise price of CDN $18.00 and expiring December 5, 2022.

On October 20, 2017 and October 30, 2017, the Company completed anon-brokered private placement offering of 446,197 common shares, for aggregate gross proceeds of $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 pursuant to an agency agreement dated June 26, 2017 between the Company and Bloom Burton. At the first closing on June 29, 2017, the Company sold 1,612,955 units at a price of CDN $4.50 per unit for gross proceeds of approximately $5,576,357 ($4,838,002 net of closing costs including cash commission of $382,689). Each unit consisted of one common share and one warrant, each warrant entitles the holder thereof to acquire one common share at an exercise price of CDN $6.00 and expires June 29, 2022. 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 109,533 common shares at a price of CDN $4.50 per share prior to expiry on June 29, 2019.

On July 21, 2017, the Company completed a second closing pursuant to which the Company sold an additional 370,567 units at a price of CDN $4.50 per unit for gross proceeds of approximately $1,328,871 ($1,200,788 net of closing costs including cash commission of $93,021). Each unit consisted of one common share and one warrant, each warrant entitles the holder thereof to acquire one common share at an exercise price of CDN $6.00 and expiring June 29, 2022.

Offerings During Q1 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. The Company sold 715,573 units under the offering at a price of CDN$10.50 per unit for gross proceeds of approximately $5,642,537 ($5,039,817 net of closing cost including cash commission of $394,316). Each unit consisted of one common share and (i) one-half of one warrant, each whole warrant entitling the holder thereof to acquire one common share of the Company at an exercise price of CDN $12.00 and expiring March 16, 2019, and (ii) one-half of one warrant, each whole warrant entitling the holder thereof to acquire one common share at an exercise price of CDN $15.00 and expiring March 16, 2021.

Private Placements – Longtai Medical Inc.

On August 24, 2017, Titan completed a subscription agreement with Longtai Medical Inc. (“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 563,067 units at an assigned issue price of CDN $4.50 per unit. Each unit consists of one Common Share and one warrant, with each warrant exercisable for one Common Share at an exercise price of CDN $6.00 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 $4.20. 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.

The utilization of proceeds as outlined in the short form prospectus dated April 3, 2018 and August 7, 2018 has been updated as outlined in the following table

	Proceeds from the Offering as outlined in the short-form prospectus dated April 3, 2018 (including the May 10, 2018 overallotment)	Proceeds from the Offering as outlined in the short-form prospectus dated August 7, 2018	Total
Ongoing development and commercialization of the SPORT Surgical System	$ 6,649,246	$ 13,971,769	$20,621,015
General working Capital requirements	1,662,312	3,492,942	5,155,254
Total Net Proceeds	$ 8,311,558	$ 17,464,711	$25,776,269

Off-Balance Sheet Arrangements

Other than for leased premises occupied by the Company, as discussed in note 8 of the audited financial statements for the year ended December 31, 2018 and 2017, 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 upon conversion**
Common Shares	22,295,455
Stock options(1)	925,782
Warrants	13,282,253
Broker warrants(2)	786,183

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 March 2017 offering, in addition to the cash commission paid to the agents, 50,005 broker warrants were issued to the agents. Each broker warrant entitles the holder thereof to acquire one Common Share at the price of CDN $10.50 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, 135,473 broker warrants were issued to the agents. Each broker warrant entitles the holder thereof to acquire one Common Share at the price of CDN $4.50 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, 105,350 broker warrants were issued to the agents. Each broker warrant entitles the holder thereof to acquire one Common Share at the price of CDN $15.00 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, 89,795 broker warrants were issued to the agents. Each broker warrant entitles the holder thereof to acquire one Common Share at the price of CDN $9.00 for a period of 24 months following the closing date.

Pursuant to the agency agreement in respect of the August 2018 offering, in addition to the cash commission paid to the agents, 537,570 broker warrants were issued to the agents. Each broker warrant entitles the holder thereof to acquire one Common Share at the price of CDN $2.50 for a period of 24 months following the closing date.

A total of 918,193 broker warrants were issued in connection with the March 2017, June 2017, December 2017 April 2018, and August 2018 offerings. As of the date hereof, 786,183 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, 2018, and the comparative information presented in the audited financial statements for the year ended December 31, 2017.

These financial statements have been prepared in accordance with accounting principles applicable to going concern, which contemplates that the Company will be able to realize its assets and settle its liabilities in the normal course as they come due during the normal course of operations for the foreseeable future. The Company has shareholders' deficiency of $172,937,694 and current losses of $22,639,272. The Company currently does not generate any revenue (other than interest income on its cash balances) and accordingly it is primarily dependent upon equity financing for any additional funding required for development and operating expenses. The Company expects that approximately US $45 million in incremental funding is needed, 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. These conditions indicate the existence of a material uncertainty that may cast significant doubt on the ability of the Company to continue as a going concern if additional funding is not secured. 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.

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 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, since 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), as well as the warrants issued August 10, 2018 with the cashless exercise option. 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 the Company's warrant liability is initially based on level 2 (significant observable inputs) and at December 31, 2018 is based on level 1, quoted prices (unadjusted) in an active market, for the Company's listed warrants and level 2 for the Company's unlisted warrants.

Related Party Transactions

During the year ended December 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 and warrant liability. 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

By internal estimates, management believes there is an opportunity for the Company to access an unaddressed U.S. market that potentially may include more than $12 billion in capital equipment revenue and more than $3 billion in associated annual recurring revenue, including smaller hospitals and the underserved ambulatory surgery center market segment.

To date, experienced robotic surgeons performed 45 single-port procedures, including 43 live porcine and two cadaver studies, at the Company's three Centers of Excellence in the US and Europe using the SPORT Surgical System. These studies assisted in validating prototype performance in preclinical settings.

During the studies, essential areas for improvement of the surgical system were identified, including enhancements to the camera and light source, hand controls, instruments and 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. The Company successfully completed, on schedule, the planned SPORT Surgical System capital equipment engineering confidence build based on the improved design by year-end 2018.

In the first quarter of 2019, the Company plans to complete and document the results of confidence build unit testing, implement subsystem design improvements and schedule the preliminary audit of the Company's quality system by a European Notified Body.

Throughout the balance of 2019, management plans to 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 identified and made to the system, advanced prototypes will be upgraded and deployed at one or more of 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 achieving design freeze and proceeding with summative evaluation usability tests with the final product, and validation studies required for regulatory filings.

In preparation for its planned FDA 510(k) application, the Company has already filed severalQ-Submissions with the FDA to clarify in detail the preclinical studies and confirmatory human data required to support its submission. The associated Q-Submission milestone has been achieved well in advance of an earlier projection for completion in 2019. The Company plans to design and execute its studies based on the FDA's responses, with the intent of filing a fully compliant 510(k) application by year-end.

Through its correspondence and discussions with the FDA, the Company has confirmed that confirmatory human data will be required for its planned regulatory submission. The performance of human surgeries with the SPORT Surgical System will require an Investigational Device Exemption ("IDE") from the FDA, which must be submitted and approved in advance. Further, the recruitment of surgeons from multiple hospital sites will be necessary to perform the surgeries. Each of these sites will require approval of their independent Institutional Review Board ("IRB") to approve the studies. During the first three quarters of 2019, the Company plans to pursue the recruitment of surgeons and hospitals for the studies, IDE approval by the FDA, and approvals by the IRB of each hospital, in preparation for the confirmatory human studies planned for completion during the fourth quarter.

Over the next twelve months, the Company plans to raise additional capital to finance the development and commercialization of the SPORT Surgical System. The company will continue to explore alternative sources in order to minimize dilutive effects, including strategic partnerships, private placements and debt. Management will continue to assess the reasonableness of development milestones, as well as timelines and related cost estimates, as financing is secured and development continues.

The Company continues to engage external 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.

Exhibit 99.4

CERTIFICATION

I, David J. McNally, certify that:

1. I have reviewed this annual report on Form 40-F of Titan Medical Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the issuer as of, and for, the periods presented in this report;

4. The issuer's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) for the issuer and have:

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the issuer, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(b) Evaluated the effectiveness of the issuer's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(c) Disclosed in this report any change in the issuer's internal control over financial reporting that occurred during the period covered by the annual report that has materially affected, or is reasonably likely to materially affect, the issuer's internal control over financial reporting; and

5. The issuer's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the issuer's auditors and the audit committee of the issuer's board of directors (or persons performing the equivalent functions):

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the issuer's ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the issuer's internal control over financial reporting.

Date: March 29, 2019

By: /s/ David J. McNally
David J. McNally
Chief Executive Officer and Director
(Principal Executive Officer)

Exhibit 99.5

CERTIFICATION

I, Stephen D. Randall, certify that:

1. I have reviewed this annual report on Form 40-F of Titan Medical Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the issuer as of, and for, the periods presented in this report;

4. The issuer's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) for the issuer and have:

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the issuer, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(b) Evaluated the effectiveness of the issuer's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(c) Disclosed in this report any change in the issuer's internal control over financial reporting that occurred during the period covered by the annual report that has materially affected, or is reasonably likely to materially affect, the issuer's internal control over financial reporting; and

5. The issuer's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the issuer's auditors and the audit committee of the issuer's board of directors (or persons performing the equivalent functions):

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the issuer's ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the issuer's internal control over financial reporting.

Date: March 29, 2019

By: /s/ Stephen D. Randall
Stephen D. Randall
Chief Financial Officer and Director
(Principal Financial and Accounting Officer)

Exhibit 99.6

CERTIFICATION PURSUANT TO
18 U.S.C. §1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report of Titan Medical Inc. (the "Company") on Form40-F for the period ended December 31, 2018 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, David J. McNally, Chief Executive Officer and Director of the Company, certify, pursuant to 18 U.S.C. §1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

(1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) The information contained in this Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

March 29, 2019

/s/ David J. McNally
David J. McNally
Chief Executive Officer and Director
(Principal Executive Officer)

A signed original of this written statement required by Section 906 has been provided to Titan Medical Inc. and will be retained by Titan Medical Inc. and furnished to the Securities and Exchange Commission or its staff upon request.

Exhibit 99.7

CERTIFICATION PURSUANT TO
18 U.S.C. §1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report of Titan Medical Inc. (the "Company") on Form 40-F for the period ended December 31, 2018 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Stephen D. Randall, Chief Financial Officer and Director of the Company, certify, pursuant to 18 U.S.C. §1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

(1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) The information contained in this Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

March 29, 2019

/s/ Stephen D. Randall
Stephen D. Randall
Chief Financial Officer and Director
(Principal Financial and Accounting Officer)

A signed original of this written statement required by Section 906 has been provided to Titan Medical Inc. and will be retained by Titan Medical Inc. and furnished to the Securities and Exchange Commission or its staff upon request.

Exhibit 99.8

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BDO Canada LLP
222 Bay Street
Suite 2200, PO Box 131
Toronto ON M5K 1H1 Canada

Consent of Independent Registered Public Accounting Firm

Titan Medical Inc.
Toronto, Canada

We hereby consent to the use of (i) our report dated February 13, 2019, on the financial statements of Titan Medical Inc. (the "Company") for the year ended December 31, 2018; and (ii) our report dated February 13, 2018, on the financial statements of the Company for the year ended December 31, 2017 included in this annual report on Form 40-F.

Our report dated February 13, 2019 with respect to the financial statements contains an explanatory paragraph that states that the Company has recurring operating losses and has a net capital deficiency, which raise substantial doubt about its ability to continue as a going concern. These financial statements do not include any adjustments that might result from the outcome of this uncertainty.

We also consent to the incorporation by reference of such reports into the Company's Registration Statement No. 333-229612 on Form S-8, Registration Statement No. 333-225962 on Form F-10, as amended and Registration Statement No. 333-230072 on Form F-10, as amended.

/s/ BDO Canada LLP

BDO Canada LLP
Toronto, Canada

March 28, 2019