

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

FORM F-3
REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

TITAN MEDICAL INC.

(Exact name of registrant as specified in its charter)

Not Applicable

(Translation of Registrant's name into English)

Ontario, Canada

(State of incorporation or organization)

98-0663504

(I.R.S. Employer Identification No.)

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

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

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

(Name, address, and telephone number of agent for service)

With a copy to:

**Dorsey & Whitney LLP
James Guttman
TD Canada Trust Tower
Brookfield Place
161 Bay Street
Suite 4310
Toronto, Ontario, Canada
M5J 2S1
(416) 367-7376**

Approximate date of commencement of proposed sale to the public: **From time to time after this registration statement becomes effective.**

If only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, check the following box.

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a registration statement pursuant to General Instruction I.C. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box.

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.C. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box.

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933.

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 7(a)(2)(B) of the Securities 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.

CALCULATION OF REGISTRATION FEE

Title of Each Class of Securities to be Registered	Amount to be Registered ⁽¹⁾	Proposed Maximum Aggregate Offering Price ⁽²⁾	Amount of Registration Fee
Common Shares			
Warrants			
Units			
Total	(1)	\$ 125,000,000	\$ 15,150

(1) There are being registered under this registration statement such indeterminate number of Common Shares, Warrants, and Units as shall have an aggregate initial offering price not to exceed \$125,000,000. This registration statement also covers an indeterminate amount of Common Shares that may be issued upon exercise of Warrants. Any securities registered by this registration statement may be sold separately or in any combination or as units with other securities registered under this registration statement. The proposed maximum initial offering price per security will be determined, from time to time, by the registrant in connection with the sale of the securities under this registration statement. Pursuant to Rule 416 under the Securities Act, the securities being registered hereunder also include such indeterminate number of common shares as may be issuable as a result of stock splits, stock dividends or similar transactions.

(2) Estimated solely for the purpose of calculating the amount of the registration fee pursuant to Rule 457(o) of the Securities Act.

The registrant hereby amends this registration statement on such date or dates as may be necessary to delay its effective date until the registrant shall file a further amendment which specifically states that this registration statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933 or until this registration statement shall become effective on such date as the Commission, acting pursuant to Section 8(a), may determine.

The information in this prospectus is not complete and may be changed. We may not sell these securities until the registration statement filed with the U.S. Securities and Exchange Commission ("SEC") is effective. This prospectus is not an offer to sell these securities and is not soliciting an offer to buy these securities in any state where the offer or sale is not permitted.

No securities regulatory authority, including without limitation the SEC or any state securities commission, has expressed an opinion about, or approved or disapproved, these securities and it is a criminal offence to claim otherwise. This short form base shelf prospectus constitutes an offering of these securities only in those jurisdictions where they may be lawfully offered for sale and therein only by persons permitted to sell such securities.

SUBJECT TO COMPLETION, JULY 30, 2019

TITAN MEDICAL INC.

Common Shares

Units

Warrants to Purchase Common Shares

\$125,000,000

Titan Medical Inc. (the "**Company**," "**Titan**," "**we**," "**us**" or "**our**") may offer and issue from time to time (the "**Offering**") common shares ("**Common Shares**" or "**Shares**") of our company, warrants to purchase Shares ("**Warrants**") and units consisting of Shares and whole or partial Warrants ("**Units**"), and together with the Common Shares and the Warrants, the "**Securities**") or any combination thereof for up to an aggregate initial offering price of \$125,000,000 (or the equivalent thereof in other currencies) during the 36 month period that this registration statement (the "**Prospectus**"), including any amendments hereto, remains effective. Securities will be offered for cash, and may be offered separately or together, in amounts, at prices and on terms to be determined based on market conditions at the time of sale as set forth in an accompanying prospectus supplement (a "**Prospectus Supplement**").

The specific terms of the Securities with respect to a particular Offering will be set out in the applicable Prospectus Supplement and may include, where applicable (i) in the case of Shares, the number of Shares offered, the offering price, and any other terms specific to the Shares being offered, (ii) in the case of Warrants, the offering price, the designation, the number and the terms of the Shares purchasable upon exercise of the Warrants, any procedures that will result in the adjustment of these numbers, the exercise price, the dates and periods of exercise and any other terms specific to the Warrants being offered, and (iii) in the case of Units, the number of Units offered, the offering price of the Units, the number, designation and terms of the Shares and Warrants comprising the Units and any procedures that will result in the adjustment of those numbers and any other specific terms applicable to the offering of Units. Where required by statute, regulation or policy, and where Securities are offered in currencies other than United States dollars, appropriate disclosure of foreign exchange rates applicable to the Securities will be included in the Prospectus Supplement describing the Securities.

All shelf information permitted under applicable law to be omitted from this Prospectus will be contained in one or more Prospectus Supplements that will be delivered to purchasers together with this Prospectus. Each Prospectus Supplement will be incorporated by reference into this Prospectus for the purposes of securities legislation as of the date of the Prospectus Supplement and only for the purposes of the distribution of the Securities to which the Prospectus Supplement pertains.

This Prospectus constitutes a public offering of the Securities only in those jurisdictions where they may be lawfully offered for sale and only by persons permitted to sell the Securities in those jurisdictions. We may offer and sell Securities to, or through, underwriters or dealers and also may offer and sell certain Securities directly to other purchasers or through agents pursuant to exemptions from registration or qualification under applicable securities laws. A Prospectus Supplement relating to each issue of Securities offered thereby will set forth the names of any underwriters, dealers, or agents involved in the Offering and sale of the Securities and will set forth the terms of the Offering of the Securities, the method of distribution of the Securities including, to the extent applicable, the proceeds we will receive and any fees, discounts or any other compensation payable to underwriters, dealers or agents and any other material terms of the plan of distribution.

The outstanding Common Shares are listed on the Toronto Stock Exchange (the "TSX") under the symbol "TMD" and the NASDAQ (the "Nasdaq") under the symbol "TMDI". On July 29, 2019 (the last trading day prior to the date of this Prospectus), the closing price of the Common Shares on: (i) the TSX was CAD \$2.85; and (ii) the Nasdaq was \$2.15. We will apply to have any Common Shares distributed under this Prospectus listed on the TSX and the Nasdaq provided the Common Shares are currently listed or traded on such exchanges. Any listing and admission will be subject to Titan fulfilling all of the listing requirements of the TSX and the Nasdaq, respectively. Unless otherwise specified in the applicable Prospectus Supplement, no Securities, other than Common Shares, will be listed or admitted to trading on any securities exchange.

Our principal executive offices are located at 170 University Avenue, Suite 1000, Toronto, Ontario, Canada, M5H 3B3 (telephone [1-416-548-7522](tel:1-416-548-7522)).

We have prepared this Prospectus in accordance with United States disclosure requirements. Our financial statements are prepared in accordance with International Financial Reporting Standards as issued by the International Accounting Standards Board ("IFRS") and thus may not be comparable to financial statements of United States companies.

Purchasers of the Securities should be aware that the acquisition of the Securities may have tax consequences in the United States and in Canada. Such consequences for purchasers who are resident in, or citizens of, the United States, or who are resident in Canada may not be described fully herein or in any applicable Prospectus Supplement. Purchasers of the Securities should read the tax discussion contained in the applicable Prospectus Supplement with respect to a particular Offering of Securities.

The enforcement by investors of civil liabilities under United States federal securities laws may be affected adversely by the fact that Titan is incorporated and governed under the laws of the Province of Ontario, Canada, that a number of our officers and directors are residents of countries other than the United States, that some or all of the underwriters, if any, may be residents of a foreign country, and a substantial portion of our assets and some of said persons are located outside the United States.

No underwriter has been involved in the preparation of this Prospectus nor has any underwriter performed any review of the contents of this Prospectus.

Investing in the Securities involves a high degree of risk. Prospective purchasers of the Securities should carefully consider all the information in this Prospectus and in the documents incorporated by reference in this Prospectus. See "Risk Factors" beginning on page 10 of this Prospectus.

The date of this Prospectus is _____, 2019.

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You should rely only on the information contained in or incorporated by reference into this Prospectus or any Prospectus Supplement. References to this “Prospectus” include documents incorporated by reference therein. See “Documents Incorporated by Reference”. The information in or incorporated by reference into this Prospectus is current only as of its date. We have not authorized anyone to provide you with information that is different. This document may only be used where it is legal to offer these Securities.

CAUTIONARY NOTE REGARDING FORWARD-LOOKING INFORMATION

Forward-looking Statements

This Prospectus, including the documents incorporated by reference herein, contains forward-looking statements and forward-looking information (collectively, “**forward-looking statements**”) within the meaning of United States securities laws relating to us that are based on the beliefs and estimates of our management as well as assumptions made by and information currently available to us. Such forward-looking statements include, but are not limited to statements concerning:

- our technology and research and development objectives, including development milestones, and achieving design freeze, estimated costs, schedules for completion and probability of success;
- our 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;
- expectation with respect to planned acute and chronic animal studies and human cadaver studies to be conducted under Good Laboratory Practices and anticipation of filing and Investigational Device Exemption (“**IDE**”) with the U.S. Food and Drug Administration (“**FDA**”);
- the Company’s expectation that the FDA will grant IDE approval and that the Company will then proceed to collect suitable confirmatory human data to support its 510(k) application to the FDA, and Technical File for the CE Mark;
- expectation that it can in a timely manner produce the appropriate preclinical and clinical data required for its 510(k) application to the FDA, and Technical File for the CE Mark;
- our expectation with respect to launching a commercial product in certain jurisdictions
- our intentions to develop a robust training curriculum and post-training assessment tools intentions to develop a robust training curriculum and post-training assessment tools that will be effective in ensuring that surgeons are appropriately trained to safely operate the Company’s single-port robotic surgical system;
- our plans to develop and commercialize our single-port robotic surgical system and the estimated incremental costs (including the status, cost and timing of achieving the development milestones disclosed herein);
- our plans to design, create and refine software for production system functionality of our single-port robotic surgical system and the estimated incremental costs (including the status, cost and timing of achieving the development milestones disclosed herein);
- our intentions to complete formative and summative human factors studies
- our intentions with respect to initiating marketing activities following receipt of the applicable regulatory approvals
- our expectation for the surgical indications for, and the benefits of, our single-port robotic surgical system
- our intention to continue to assess specialized skill and knowledge requirements and the recruitment of qualified personnel and partners;

- our belief that the specialized components, parts and know-how necessary for the manufacture of the single-port robotic surgical system, suitable for clinical use, will be available in the marketplace;
- our belief that existing and planned systems will be suitable to support human factors studies, animal and human cadaver studies, human confirmatory studies, and 2019 activities related to filing its applications for regulatory clearance;
- our intention of filing and prosecution of patent applications to expand the Company's intellectual property portfolio as technologies are developed or refined;
- our seeking of licensing opportunities to expand our intellectual property portfolio;
- our intended use of proceeds of any offering of our securities;
- our intention with respect to not paying any cash dividends on Common Shares in the foreseeable future;
- our intention to retain future earnings, if any, to finance expansion and growth;
- projected competitive conditions with respect to our products;
- the estimated size of the market for robotic surgical systems for abdominal surgery, and
- the potential market for the securities issuable under the Offering.

When used in this Prospectus, any statements that express or involve discussions with respect to predictions, beliefs, plans, projections, objectives, assumptions or future events of performance (often but not always using words or phrases such as "anticipate", "believe", "estimate", "expect", "intend", "plan", "strategy", "goals", "objectives", "project", "potential" or variations thereof or stating that certain actions, events, or results "may", "could", "would", "might" or "will" be taken, occur, or be achieved, or the negative of any of these terms and similar expressions), as they relate to us or our management, are intended to identify forward-looking statements.

Such forward-looking statements reflect our current views with respect to future events and are subject to certain known and unknown risks, uncertainties and assumptions. Many factors could cause actual results, performance, or achievements to be materially different from any future results, performance or achievements that may be expressed or implied by such forward-looking statements, including, among others:

- risks relating to our ability to obtain additional financing;
- risks relating to our history of losses;
- risks and uncertainties relating to the generating sustainable earnings from our contemplated products;
- risks related to loss of key members of management and/or ability to attract and retain qualified employees;
- risks related to dependence on third parties retained to conduct preclinical studies;
- risks related to increased competition in the robotic surgical market;
- risks related to licensing and/or infringement of intellectual property rights of third parties;
- risks related to the price and volume volatility of the Common Shares;

- risks related to governmental regulations and approval processes of Food and Drug Administration of the United States Department of Health and Human Services, including possible changes thereto;
- risks related to acceptance of our technology; and
- risks related to the ability to maintain the listing of the Common Shares on the TSX and Nasdaq.

Should one or more of these risks or uncertainties materialize, or should underlying assumptions prove incorrect, actual results may vary materially from those described herein. This list is not exhaustive of the factors that may affect any of our forward-looking statements. Forward-looking statements are statements about the future and are inherently uncertain, and our actual achievements 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 without limitation, those referred to in this document under the heading “Risk Factors”, in our 40-F and the Annual Information Form (each as defined below) and elsewhere. The forward-looking statements in this Prospectus are based on the reasonable beliefs, expectations and opinions of management on the date the forward-looking statements are made, and, except as required by law, we do not assume any obligation to update forward-looking statements if circumstances or our management’s beliefs, expectations or opinions should change.

For the reasons set forth above, investors should not attribute undue certainty to or place undue reliance on forward-looking statements.

Additional risks and uncertainties relating to us and our business can be found in the “Risk Factors” section of this Prospectus and in any applicable Prospectus Supplement, as well as in our other documents incorporated by reference herein.

PUBLICALLY AVAILABLE INFORMATION ON TITAN

We file reports and other information with the securities commissions and similar regulatory authorities in the provinces of Canada (collectively, the “**Commissions**”). These reports and information are available to the public free of charge on SEDAR at www.sedar.com.

We are subject to the information requirements of the U.S. Securities Exchange Act of 1934, as amended (the “**U.S. Exchange Act**”), relating to foreign private issuers and applicable Canadian securities legislation and, in accordance therewith, file reports and other information with the SEC and securities regulatory authorities in Canada. As a foreign private issuer, we are exempt from the rules under the U.S. Exchange Act prescribing the furnishing and content of proxy statements, and our officers, directors and principal shareholders are exempt from the reporting and short-swing profit recovery provisions contained in Section 16 of the U.S. Exchange Act.

Investors may read any document that we have filed with the SEC at the SEC’s public reference room in Washington, D.C. Investors may also obtain copies of those documents from the public reference room of the SEC at 100 F Street, N.E., Washington, D.C. 20549 by paying a fee. Investors should call the SEC at 1-800-SEC-0330 or access its website at www.sec.gov for further information about the public reference rooms. Investors may also read and download documents we have filed with the SEC’s Electronic Data Gathering and Retrieval system at www.sec.gov.

Readers should rely only on information contained or incorporated by reference in this Prospectus and any applicable Prospectus Supplement. We have not authorized anyone to provide the reader with different information. We are not making an offer of the Securities in any jurisdiction where the offer is not permitted. Readers should not assume that the information contained in this Prospectus is accurate as of any date other than the date on the front of this Prospectus, unless otherwise noted herein or as required by law. It should be assumed that the information appearing in this Prospectus and the documents incorporated herein by reference are accurate only as of their respective dates. Our business, financial condition, results of operations and prospects may have changed since those dates.

DOCUMENTS INCORPORATED BY REFERENCE

Information has been incorporated by reference in this Prospectus from documents filed with the Commissions and filed with, or furnished to, the SEC Copies of the documents incorporated herein by reference may be obtained on request without charge upon written or oral request from our Chief Financial Officer at 170 University Avenue, Suite 1000, Toronto, Ontario, Canada, M5H 3B3 (telephone 416-548-7522). Copies of these documents are also available through the Internet on the System for Electronic Document Analysis and Retrieval, which can be accessed online at www.sedar.com and on the SEC's Electronic Data Gathering and Retrieval System, which can be accessed online at www.sec.gov and at our website at www.titanmedicalinc.com

The following documents, which we filed or furnished with the Commissions and the SEC, as applicable, are specifically incorporated by reference into, and form an integral part of, this Prospectus:

- (a) Our Form 40-F Annual Report dated March 29, 2019 for the year ended December 31, 2018 (the "**40-F**") filed with the SEC on March 29, 2019;
- (b) Our Material Change Report dated March 6, 2019 which was included as Exhibit 99.1 to the Form 6-K filed with the SEC on March 8, 2019;
- (c) Our Material Change Report dated March 28, 2019 which was included as Exhibit 99.4 to the Form 6-K filed with the SEC on May 31, 2019;
- (d) Our Unaudited Condensed Interim Financial Statements for the three-month period ended March 31, 2019, which were included as Exhibit 99.2 to the Form 6-K filed with the SEC on May 15, 2019;
- (e) Our Management Discussion and Analysis for the three-month period ended March 31, 2019 (the "**March 2019 MD&A**"), which was included as Exhibit 99.3 to the Form 6-K filed with the SEC on May 15, 2019;
- (f) Our management information circular for the annual general meeting of shareholders held on May 29, 2019 which was included as Exhibit 99.6 to the Form 6-K filed with the SEC on May 31, 2019; and

In addition, this Prospectus shall also be deemed to incorporate by reference all subsequent annual reports filed on Form 20-F, Form 40-F or Form 10-K, and all subsequent filings on Forms 10-Q and 8-K filed by us pursuant to the U.S. Exchange Act prior to the termination of the Offering made by this Prospectus. We may incorporate by reference into this Prospectus any Form 6-K that is submitted to the SEC after the date of the filing of the registration statement of which this Prospectus forms a part and before the date of termination of this Offering. Any such Form 6-K that we intend to so incorporate shall state in such form that it is being incorporated by reference into this Prospectus. The documents incorporated or deemed to be incorporated herein by reference contain meaningful and material information relating to us and the readers should review all information contained in this Prospectus and the documents incorporated or deemed to be incorporated herein by reference.

A Prospectus Supplement containing the specific terms of an Offering of Securities and other information relating to the Securities will be delivered to prospective purchasers of such Securities together with this Prospectus and will be deemed to be incorporated into this Prospectus as of the date of such Prospectus Supplement only for the purpose of the Offering of the Securities covered by that Prospectus Supplement.

Any statement contained in a document incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded for the purposes of this Prospectus, to the extent that a statement contained herein or in any other subsequently filed document which also is or is deemed to be incorporated by reference herein modifies or supersedes such statement. Any statement so modified or superseded shall not constitute a part of this Prospectus, except as so modified or superseded. The modifying or superseding statement need not state that it has modified or superseded a prior statement or include any other information set forth in the document that it modifies or supersedes. The making of such a modifying or superseding statement shall not be deemed an admission for any purposes that the modified or superseded statement, when made, constituted a misrepresentation, an untrue statement of a material fact or an omission to state a material fact that is required to be stated or that is necessary to make a statement not misleading in light of the circumstances in which it was made.

RISK FACTORS

An investment in our Securities is highly speculative and subject to a number of known and unknown risks. Only those persons who can bear the risk of the entire loss of their investment should purchase our Securities. You should carefully consider the risk factors set forth below along with the risk factors in the 40-F, the March 2019 MD&A and the other information contained in this Prospectus, as updated by our subsequent filings under the U.S. Exchange Act, and the risk factors and other information contained in any applicable Prospectus Supplement, before purchasing any of our Securities.

You may experience future dilution as a result of future equity offerings.

In order to raise additional capital, we may in the future offer additional Common Shares or other securities convertible into or exchangeable for Common Shares at prices that may not be the same as the price per share paid by any investor in an offering in a subsequent Prospectus Supplement. We may sell shares or other securities in any other offering at a price per share that is less than the price per share or other security paid by any investor in an offering in a subsequent Prospectus Supplement, and investors purchasing shares or other securities in the future could have rights superior to you. The price per share at which we sell additional Common Shares or securities convertible or exchangeable into Common Shares, in future transactions may be higher or lower than the price per share paid by any investor in an offering under a subsequent Prospectus Supplement.

There can be no assurance as to the liquidity of the trading market for certain Securities or that a trading market for certain Securities will develop.

With the exception of certain warrants previously issued by us and listed on the TSX, there is no public market for our warrants, unless otherwise specified in the applicable Prospectus Supplement, the Company does not intend to apply for listing of Warrants. If these securities are traded after their initial issue, they may trade at a discount from their initial offering prices depending on the market for similar securities, prevailing interest rates and other factors, including general economic conditions and the Company's financial condition. There can be no assurance as to the liquidity of the trading market for any Warrants or that a trading market for these securities will develop.

There will be no market for the Units.

We have not applied and do not intend to apply to list the Units on any securities exchange. There will be no market through which Units may be sold and purchasers may not be able to resell Units purchased in any Offering. If the Units are traded after their initial issue, they may trade at a discount from their initial offering prices depending on the market conditions, prevailing interest rates and other factors, including general economic conditions and our financial condition. There can be no assurance as to the liquidity of the trading market for the Units or that a trading market for such Units will develop.

MATERIAL CHANGES

Except as otherwise disclosed in this Prospectus there have been no material changes to our operations that have occurred since December 31, 2018, and that have not been described in a report on Form 6-K furnished under the U.S. Exchange Act and incorporated by reference into this Prospectus.

CONSOLIDATED CAPITALIZATION

The following table sets forth our capitalization and indebtedness as of March 31, 2019. This table should be read in conjunction with our unaudited interim condensed consolidated financial statements as at and for the three months ended March 31, 2019, which are incorporated by reference into this Prospectus.

	As at March 31, 2019
Liabilities	
Accounts payable and accrued liabilities	\$ 6,495,644
Other current liabilities – with warrant liability	33,774,970
Total current liabilities	40,270,614
Loan payable	0
Long-term liability	0
Total non-current liabilities	0
Equity	
Common shares	189,726,067
Warrants	0
Contributed surplus	6,903,766
Deficit	(201,220,574)
Total equity/(deficit)	(4,590,741)
Total liabilities and equity	35,679,873

There have been no material changes in our share capital, on a consolidated basis, since the date of our unaudited interim condensed consolidated financial statements as at and for the three month period ended March 31, 2019, which are incorporated by reference in the Prospectus.

DESCRIPTION OF SHARE CAPITAL

Common Shares

Our authorized share capital consists of an unlimited number of Common Shares with no par value of which 31,150,237 were issued and outstanding as at March 31, 2019.

The holders of Common Shares are entitled to receive notice of and to attend all annual and special meetings of our 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, to receive out of any or all of our profits or surplus properly available for the payment of dividends, any dividend declared by the Board and payable by us on the Common Shares. The holders of the Common Shares will participate *pro rata* in any distribution of our assets upon liquidation, dissolution or winding-up or other distribution of our assets. Such participation will be subject to the rights, privileges, restrictions and conditions attached to any of our securities issued and outstanding at such time ranking in priority to the Common Shares upon our liquidation, dissolution or winding-up. Common Shares are issued, on authorization and approval from the Board, from treasury without par value and only as fully paid and are non-assessable. Common Shares will only be issued through the book-based system administered by CDS in Canada and by DTC in the United States, except in limited circumstances.

Warrants

As of the date of this prospectus, we have 21,203,411 warrants outstanding to purchase Common Shares at exercise prices ranging from \$3.20 to \$36.07. The holders of Warrants are entitled to exercise, prior to expiry of the Warrant, a Warrant to purchase an equal number of Common Shares upon delivery to the Company of the aggregate price specified in the Warrant for receiving a Common Share. Only on receipt of a Common Share, and not prior, is a person entitled to the rights that holders of Common Shares (as outlined above) are entitled to.

All outstanding warrants are governed by warrant indentures 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.

Share Options

The Company has established a stock option plan for officers, directors, employees and service providers of the Company, prepared in compliance with the requirements of the TSX, which is administered by the Board. As of the date of this Prospectus, we have 960,195 Common Share options outstanding with an exercise price that ranges between 1.55 and 43.28.

Share Capital History

On June 19, 2018, a share consolidation, on the basis of 30 pre-consolidation Common Shares forming one post-consolidation Common Share, was completed and our outstanding common shares were adjusted from 419,888,250 to 13,996,275. The number of Common Shares purchasable upon the exercise of each warrant, broker warrant and stock option has been adjusted one to 0.033333 (requiring 30 warrants, 30 broker warrants or 30 options, as the case may be, to purchase one Common Share). Where appropriate, all references to units, Common Shares, warrants, and stock options have been updated to reflect the 1:30 share consolidation.

Issuances During Q1 2019

In addition, we completed an offering of securities pursuant to an agency agreement dated March 18, 2019 between the Company and Bloom Burton Securities Inc. (**Bloom Burton**). We sold 8,455,882 units under the offering at a price of \$3.40 per unit for gross proceeds of approximately \$28,750,000. 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 \$4.00 and expiring March 21, 2024. We issued broker warrants to Bloom Burton entitling the holder to purchase 591,911 Common Shares at a price of \$3.40 and expiring March 18, 2021.

In addition, we issued 1,018,506 Common Shares upon the exercise of Common Share purchase warrants at an exercise price of \$3.20.

Issuances During Q3 2018

On August 10, 2018, we completed an offering of securities pursuant to an agency agreement dated August 7, 2018 between the Company and Bloom Burton. We 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. In connection with the offering, 537,570 broker warrants were issued each entitling the holder to acquire one Common Share at a price of \$2.50 and expiring August 10, 2020.

Issuances During Q2 2018

On April 10, 2018, we completed an offering of securities pursuant to an agency agreement dated April 3, 2018 between Bloom Burton and us. We sold 1,126,665 units under the Offering at a price of CAD \$9.00 per unit for gross proceeds of approximately \$8,035,941. Each unit consisted of one Common Share and 0.03333 warrant, each whole warrant entitling the holder to acquire one Common Share at an exercise price of CAD \$10.50 and expiring April 10, 2023. In connection with the offering, 89,795 broker warrants were issued entitling the holder to acquire one Common Share at a price of CAD \$9.00 and expiring April 10, 2020.

On May 10, 2018, we announced the exercise of the over-allotment option granted to Bloom Burton as agent for our offering, at a price of CAD \$9.00 per unit, completed on April 10, 2018 wherein we sold an additional 168,889 units at the offering price for additional gross proceeds of \$1,189,856. Each unit consisted of one Common Share and 0.03333 warrant, each whole warrant entitling the holder to acquire one Common Share at an exercise price of CAN \$10.50 and expiring April 10, 2023.

Issuances During Q1 2018

We issued an aggregate of 6,497 Common Shares upon the exercise of Common Share purchase warrants at exercise prices between CAD \$6.00 and CAD \$8.10. We also issued an aggregate of 7,500 Common Shares pursuant to consultant agreements at a prices between CAD \$8.10 and CAD \$12.60.

Issuances During Q4 2017

On December 5, 2017, we completed an offering of units made pursuant to an agency agreement dated November 30, 2017 between Bloom Burton and us. We sold 1,533,333 units at a price of CAD \$15.00 per unit for gross proceeds of approximately \$18,137,800. Each unit consisted of one Common Share and 0.03333 warrant, each whole warrant entitling the holder to acquire one additional Common Share at an exercise price of CAD \$18.00 and expiring December 5, 2022. In connection with the offering, 105,350 broker warrants were issued entitling the holder to acquire one Common Share at a price of CAD \$15.00 and expiring December 5, 2019. On October 20, 2017 and October 30, 2017, we completed a non-brokered private placement offering of 446,197 Common Shares, for aggregate gross proceeds of \$2,677,326, to subscribers in Canada, the United States and Europe.

We issued an aggregate of 1,404,753 Common Shares upon the exercise of Common Share purchase warrants and broker warrants at exercise prices between CAD \$4.50 and CAD \$15.00. We also issued an aggregate of 7,500 Common Shares pursuant to consultant agreements at a prices between CAD \$11.40 and CAD \$14.40.

Issuances During Q2 and Q3 2017

On June 29, 2017, we completed an offering of securities pursuant to an agency agreement dated June 26, 2017 between Bloom Burton and us. At the first closing on June 29, 2017, we sold 1,612,955 units at a price of CAD \$4.50 per unit for gross proceeds of approximately \$5,576,357. Each unit consisted of one Common Share and 0.03333 warrant, each whole warrant entitling the holder to acquire one Common Share at an exercise price of CAD \$6.00 and expiring June 29, 2022. On July 21, 2017, Titan completed the second closing of the offering pursuant to which we sold an additional 370,567 units at a price of CAD \$4.50 per unit for gross proceeds of approximately \$1,328,871. In connection with the offering, 135,473 broker warrants were issued entitling the holder to acquire one Common Share at a price of CAD \$4.50 and expiring June 29, 2019.

Additionally, on August 24, 2017, we completed a \$2,000,000 equity conversion with Longtai Medical Inc. ("**Longtai Medical**"), pursuant to which 563,067 units were issued. Each unit consisted of one Common Share and 0.03333 warrant, each whole warrant entitling Longtai Medical to acquire one additional Common Share at an exercise price of CAD \$6.00 and expiring August 24, 2022.

We issued an aggregate of 525,585 Common Shares upon the exercise of Common Share purchase warrants at exercise prices between CAD \$6.00 and CAD \$12.00.

Issuances During Q1 2017

On March 16, 2017, Titan completed an offering of securities made pursuant to an agency agreement dated March 10, 2017 between Bloom Burton and us. We sold 715,573 units under the offering at a price of CAD \$10.50 per unit for gross proceeds of approximately \$5,642,537. Each unit consisted of one Common Share and (i) 0.01666 of one warrant, each whole warrant entitling the holder to acquire one Common Share at an exercise price of CAD \$12.00 and expiring March 16, 2019, and (ii) 0.01666 of one warrant, each whole warrant entitling the holder to acquire one Common Share at an exercise price of CAD \$15.00 and expiring March 16, 2021. In connection with the offering, 50,005 broker warrants were issued entitling the holder to acquire one Common Share at a price of CAD \$10.50, which expired on March 16, 2019.

Issuances During H2 2016

On September 20, 2016, we completed an offering of securities pursuant to an agency agreement dated September 13, 2016 between us and Bloom Burton and Echelon Wealth Partners Inc. We sold 569,444 units under the offering at a price of CAD \$18.00 per unit for gross proceeds of \$7,749,000. Each unit consisted of one Common Share and 0.03333 warrant, each whole warrant entitling the holder to acquire one Common Share at an exercise price of CAD \$22.50 and expiring September 20, 2021. On October 27, 2016, the Company sold an additional 67,667 units at the offering price of CAD \$18.00 per unit for additional gross proceed of \$909,846 pursuant to the exercise of the over-allotment option. In connection with the offering, 38,850 broker warrants were issued entitling the holder to acquire one Common Share at a price of CAD \$22.50, which expired on September 20, 2018.

MEMORANDUM AND ARTICLES OF ASSOCIATION

Incorporation

We are an Ontario corporation, being the successor corporation formed pursuant to an amalgamation under the *Business Corporations Act* (Ontario) (the "OBCA") on July 28, 2008.

Objects and Purposes of the Company

Our articles do not contain and are not required to contain a description of our objects and purposes. There is no restriction contained in our articles on the business that we may carry on.

Voting on Certain Proposal, Arrangement, Contract or Compensation by Directors

Other than as disclosed below, neither our articles nor our corporate by-laws restrict our directors' power to (a) vote on a proposal, arrangement or contract in which the directors are materially interested or (b) to vote with regard to compensation payable to themselves or any other members of their body in the absence of an independent quorum.

Our corporate by-laws provide that a director or officer who: (a) is a party to; or (b) is a director or an officer of, or has a material interest in, any person who is a party to; a material contract or transaction or proposed material contract or transaction with us shall disclose the nature and extent of such director's or officer's interest at the time and in the manner provided by the OBCA. Any such contract or transaction or proposed material contract or transaction shall be referred to our Board or shareholders for approval in accordance with the OBCA even if such contract or proposed material contract or transaction is one that in the ordinary course of our business would not require approval by our Board or shareholders, and a director interested in a contract or transaction so referred to our Board shall not attend any part of a meeting of our Board during which the contract or transaction is discussed and shall not vote on any resolution to approve such contract or transaction except as provided by the OBCA.

Subject to our articles and any unanimous shareholder agreement, our directors shall be paid such remuneration for their services as our Board may from time to time determine. Our directors shall also be entitled to be reimbursed for travelling and other expenses properly incurred by them in attending meetings of our Board or any committee thereof.

The OBCA provides that a director who holds a disclosable interest in a contract or transaction into which we have entered or propose to enter shall not attend any part of a meeting of directors during which the contract or transaction is discussed and shall not vote on any resolution to approve the contract or transaction unless it is a contract or transaction: (i) relating primarily to such director's remuneration as a director of the company or one of our affiliates; (ii) for indemnity or insurance for the benefit of such director in his/her capacity as a director; or (iii) with one of our affiliates.

A director or officer who holds a disclosable interest in a contract or transaction into which we have entered or propose to enter is not accountable to us or our shareholders for any profit or gain realized from the contract or transaction and the contract or transaction is neither void nor voidable by reason only of that relationship or by reason only that the director is present at or is counted to determine the presence of a quorum at the meeting of directors that authorized the contract or transaction, if the director or officer disclosed his or her interest in accordance with the OBCA and the contract or transaction was reasonable and fair to us at the time it was approved.

The OBCA provides that a director or officer generally holds a disclosable interest in a contract or transaction if either (a) the director or officer is a party to the contract or transaction with us or a proposed contract or transaction with us, and such contract or transaction is material to us; or (b) the director or officer is a director or an officer of, or has a material interest in, any person who is a party to a material contract or transaction or proposed material contract or transaction with us.

Borrowing Powers of Directors

Our articles and corporate by-laws provide that, if authorized by our directors, we may:

- borrow money upon our credit;
- issue sell or pledge debt obligations (including bonds, debentures, notes or other similar obligations, secured or unsecured) of the Company; and
- charge, mortgage, hypothecate, pledge all or any of the currently owned or subsequently acquired real or personal, movable or immovable, property of the Company, including book debts, rights, powers, franchises and undertakings, to secure any debt obligations or money borrowed, or other debt or liability of the Company.

Amendment to the borrowing powers described above requires an amendment to our articles and corporate by-laws. Our articles and corporate by-laws do not contain any provisions in connection with amending the by-laws. The OBCA provides that our Board may by resolution, make, amend or repeal any by-laws that regulate our business and affairs and that our Board will submit such by-law, amendment or repeal to our shareholders at the next meeting of shareholders and the shareholders may, by ordinary resolution, confirm, reject or amend the by-law, amendment or repeal.

Qualifications of Directors

Under our articles and corporate by-laws, a director is not required to hold a share in our capital as qualification for his or her office but must be qualified as required by the OBCA to become, act or continue to act as a director. The OBCA provides that the following persons are disqualified from being a director of a corporation: (i) a person who is less than 18 years of age; (ii) a person who has been found under the *Substitute Decisions Act, 1992* or under the *Mental Health Act* to be incapable of managing property or who has been found to be incapable by a court in Canada or elsewhere; (iii) a person who is not an individual; and (iv) a person who has the status of a bankrupt.

Subject to the OBCA, at least 25% of the directors must be resident Canadians. If we have less than four directors, at least one director must be a resident Canadian.

Share Rights

See the discussion in the section of this prospectus entitled "Description of Share Capital" for a summary of our authorized capital and the rights attached to our common shares.

Procedures to Change the Rights of Shareholders

The rights, privileges, restrictions and conditions attaching to our shares are contained in our articles and such rights, privileges, restrictions and conditions may be changed by amending our articles. In order to amend our articles, the OBCA requires a resolution to be passed by a majority of not less than two-thirds of the votes cast by the shareholders entitled to vote thereon. In addition, if we resolve to make particular types of amendments to our articles, a holder of our shares may dissent with regard to such resolution and, if such shareholder so elects, we would have to pay such shareholder the fair value of the shares held by the shareholder in respect of which the shareholder dissents as of the close of business on the day before the resolution was adopted. The types of amendments that would be subject to dissent rights include without limitation: (i) to add, remove or change restrictions on the issue, transfer or ownership of shares of a class or series of our shares; and (ii) to add, remove or change any restriction upon the business that we may carry on or upon the powers that we may exercise.

Meetings

Each director holds office until our next annual general meeting or until his office is earlier vacated in accordance with our articles or with the provisions of the OBCA. A director appointed or elected to fill a vacancy on our board also holds office until our next annual general meeting.

Annual meetings of our shareholders must be held at such time in each year not more than 15 months after the last annual meeting, as our Board may determine. Notice of the time and place of a meeting of shareholders must be sent not less than twenty-one days and not more than fifty days, before the meeting.

Meetings of our shareholders shall be held at our registered office or, if our Board shall so determine, at some other place in Ontario or, at some place outside Ontario if all the shareholders entitled to vote at the meeting so agree.

Our Board, the chair of our Board or our chief executive officer shall have power to call a special meeting of our shareholders at any time.

The OBCA provides that our shareholders may requisition a special meeting in accordance with the OBCA. The OBCA provides that the holders of not less than five percent of our issued shares that carry the right to vote at a meeting may requisition our directors to call a special meeting of shareholders for the purposes stated in the requisition.

Under our by-laws, the quorum for the transaction of business at a meeting of our shareholders is one person, present in person or by proxy and holding in aggregate not less than 20% of our issued shares entitled to vote at such meeting.

Limitations on Ownership of Securities

There is no limitation imposed by the laws of Canada or by the Company's constituting documents on the right of a non-resident to hold or vote the Common Shares, other than as provided in the *Investment Canada Act*. The following discussion summarizes the principal features of the *Investment Canada Act* for a non-resident who proposes to acquire the Common Shares.

The *Investment Canada Act* requires each "non-Canadian" (as defined in the *Investment Canada Act*) who acquires "control" of an existing "Canadian business", where the acquisition of control is not a reviewable transaction, to file a notification in prescribed form with the responsible federal government department or departments not later than 30 days after closing. Subject to certain exemptions, a transaction that is reviewable under the *Investment Canada Act* may not be implemented until an application for review has been filed and the responsible Minister of the federal cabinet has determined that the investment is likely to be of "net benefit to Canada" taking into account certain factors set out in the *Investment Canada Act*.

Under the *Investment Canada Act*, an investment in the Company's Common Shares by a non-Canadian who is a World Trade Organization member country investor that is not a state-owned enterprise, would be reviewable only if it were an investment to acquire control of the Company pursuant to the *Investment Canada Act* and the enterprise value of the Company's assets (as determined pursuant to the *Investment Canada Act* and its regulations) was equal to or greater than CAD \$1.045 billion, or CAD \$1.568 billion in the case of a "trade agreement investor". The *Investment Canada Act* contains various rules to determine if there has been an acquisition of control. For example, for purposes of determining whether an investor has acquired control of a corporation by acquiring shares, the following general rules apply, subject to certain exceptions: the acquisition of a majority of the undivided ownership interests in the voting shares of the corporation is deemed to be an acquisition of control of that corporation; the acquisition of less than a majority, but one-third or more, of the voting shares of a corporation or of an equivalent undivided ownership interest in the voting shares of the corporation is presumed to be an acquisition of control of that corporation unless it can be established that, on the acquisition, the corporation is not controlled in fact by the acquirer through the ownership of voting shares; and the acquisition of less than one third of the voting shares of a corporation or of an equivalent undivided ownership interest in the voting shares of the corporation is deemed not to be an acquisition of control of that corporation.

Under the *Investment Canada Act*, a national security review on a discretionary basis may also be undertaken by the federal government with respect to any investment by a non-Canadian to "acquire, in whole or part, or to establish an entity carrying on all or any part of its operations in Canada." No financial threshold applies to a national security review. The relevant test is whether the investment by a non-Canadian could be "injurious to national security." Review on national security grounds may occur on a pre- or post-closing basis.

Certain transactions relating to the Company's Common Shares will generally be exempt from the *Investment Canada Act*, subject to the federal government's prerogative to conduct a national security review, including:

- (1) the acquisition of the Company's Common Shares by a person in the ordinary course of that person's business as a trader or dealer in securities;
- (2) the acquisition of control of the Company in connection with the realization of security granted for a loan or other financial assistance and not for any purpose related to the provisions of the *Investment Canada Act*, and
- (3) the acquisition of control of the Company by reason of an amalgamation, merger, consolidation or corporate reorganization following which the ultimate direct or indirect control in fact of the Company, through ownership of the Company's Common Shares, remains unchanged.

Change in Control

There are no provisions in our articles or by-laws that would have the effect of delaying, deferring or preventing a change in control of the Company, and that would operate only with respect to a merger, acquisition or corporate restructuring involving the Company or our subsidiaries.

Ownership Threshold

Neither our by-laws nor our articles contain any provisions governing the ownership threshold above which shareholder ownership must be disclosed. In addition, securities legislation in Canada requires that we disclose in our proxy information circular for our annual meeting and certain other disclosure documents filed by us under such legislation, holders who beneficially own more than 10% of our issued and outstanding shares.

Differences in Corporate Law

We are governed by the OBCA, which is generally similar to laws applicable to United States corporations. Significant differences between the OBCA and the Delaware General Corporate Law, or DGCL, which governs companies incorporated in the State of Delaware, include the following:

Board of Director Quorum and Vote Requirements

Delaware

Under the DGCL, a majority of the total number of directors shall constitute a quorum for the transaction of business unless the certificate or bylaws require a greater number. The bylaws may lower the number required for a quorum to one-third the number of directors, but no less.

Under the DGCL, the board of directors may take action by the majority vote of the directors present at a meeting at which a quorum is present unless the certificate of incorporation or bylaws require a greater vote.

Ontario

Under the OBCA, subject to an Ontario corporation's articles or bylaws, a majority of the number of directors or minimum number of directors required by the articles constitutes a quorum at any meeting of directors. Where a corporation has fewer than three directors, all directors must be present at any meeting to constitute a quorum.

Under the OBCA, subject to an Ontario corporation's articles or bylaws, where there is a vacancy or vacancies in the board of directors, the remaining directors may exercise all the powers of the board so long as a quorum of the board remains in office.

Transactions with Directors and Officers

Delaware

The DGCL generally provides that no transaction between a corporation and one or more of its directors or officers, or between a corporation and any other corporation or other organization in which one or more of its directors or officers, are directors or officers, or have a financial interest, shall be void or voidable solely for this reason, or solely because the director or officer is present at or participates in the meeting of the board or committee which authorizes the transaction, or solely because any such director's or officer's votes are counted for such purpose, if (i) the material facts as to the director's or officer's interest and as to the transaction are known to the board of directors or the committee, and the board or committee in good faith authorizes the transaction by the affirmative votes of a majority of the disinterested directors, even though the disinterested directors be less than a quorum (ii) the material facts as to the director's or officer's interest and as to the transaction are disclosed or are known to the stockholders entitled to vote thereon, and the transaction is specifically approved in good faith by vote of the stockholders; or (iii) the transaction is fair as to the Company as of the time it is authorized, approved or ratified, by the board of directors, a committee or the stockholders.

Ontario

The OBCA requires that a director or officer of a corporation who is: (i) a party to a material contract or transaction or proposed material contract or transaction with the Company; or (ii) a director or an officer of, or has a material interest in, any person who is a party to a material contract to or transaction or proposed material contract or transaction with the Company shall disclose in writing to the Company or request to have entered in the minutes of meetings of directors the nature and extent of his or her interest. An interested director is prohibited from attending the part of the meeting during which the contract or transaction is discussed and is prohibited from voting on a resolution to approve the contract or transaction except in specific circumstances, such as a contract or transaction relating primarily to his or her remuneration as a director, a contract or transaction for indemnification or liability insurance of the director, or a contract or transaction with an affiliate of the Company. If a director or officer has disclosed his or her interest in accordance with the OBCA and the contract or transaction was reasonable and fair to the Company at the time it was approved, the director or officer is not accountable to the Company or its shareholders for any profit or gain realized from the contract or transaction and the contract or transaction is neither void nor voidable by reason only of the interest of the director or officer or that the director is present at or is counted to determine the presence of a quorum at the meeting of directors that authorized the contract or transaction.

The OBCA further provides that even if a director or officer does not disclose his or her interest in accordance with the OBCA, or (in the case of a director) votes in respect of a resolution on a contract or transaction in which he or she is interested contrary to the OBCA, if the director or officer acted honestly and in good faith and the contract or transaction was reasonable and fair to the Company at the time it was approved, the director or officer is not accountable to the Company or to its shareholders for any profit or gain realized from the contract or transaction by reason only of his or her holding the office of the director or officer and the contract or transaction is not by reason only of the director's or officer's interest therein void or voidable, if the contract or transaction has been confirmed or approved by the shareholders by special resolution, on the basis of disclosure in reasonable detail of the nature and extent of the director's or officer's interest in the notice of meeting or management information circular.

Call and Notice of Stockholder Meetings

Delaware

Under the DGCL, an annual or special stockholder meeting is held on such date, at such time and at such place as may be designated by the board of directors or any other person authorized to call such meeting under the Company's certificate of incorporation or bylaws. If an annual meeting for election of directors is not held on the date designated or an action by written consent to elect directors in lieu of an annual meeting has not been taken within 30 days after the date designated for the annual meeting, or if no date has been designated, for a period of 13 months after the later of the last annual meeting or the last action by written consent to elect directors in lieu of an annual meeting, the Delaware Court of Chancery may summarily order a meeting to be held upon the application of any stockholder or director.

Stockholder Action by Written Consent

Delaware

Under the DGCL, a majority of the stockholders of a corporation may act by written consent without a meeting unless such action is prohibited by the Company's certificate of incorporation.

Stockholder Nominations and Proposals

Delaware

Not applicable.

Ontario

Under the OBCA, the directors of a corporation are required to call an annual meeting of shareholders no later than fifteen months after holding the last preceding annual meeting. Under the OBCA, the directors of a corporation may call a special meeting at any time. In addition, holders of not less than five percent of the issued shares of a corporation that carry the right to vote at a meeting sought to be held may requisition the directors to call a meeting of shareholders.

Ontario

Under the OBCA, a written resolution signed by all the shareholders of a corporation who would have been entitled to vote on the resolution at a meeting is effective to approve the resolution.

Ontario

Under the OBCA, a shareholder entitled to vote at a shareholders' meeting may submit a shareholder proposal relating to matters which the shareholder wishes to propose and discuss at a shareholders' meeting and, subject to such shareholder's compliance with the prescribed time periods and other requirements of the OBCA pertaining to shareholder proposals, the Company is required to include such proposal in the information circular pertaining to any meeting at which it solicits proxies, subject to certain exceptions. Notice of such a proposal must be provided to the Company at least 60 days before the anniversary date of the last annual shareholders' meeting, or at least 60 days before any other meeting at which the matter is proposed to be raised.

In addition, the OBCA requires that any shareholder proposal that includes nominations for the election of directors must be signed by one or more holders of shares representing in the aggregate not less than five per cent of the shares or five per cent of the shares of a class or series of shares of the Company entitled to vote at the meeting to which the proposal is to be presented.

Stockholder Quorum and Vote Requirements

Delaware

Under the DGCL, quorum for a stock corporation is a majority of the shares entitled to vote at the meeting unless the certificate of incorporation or bylaws specify a different quorum, but in no event may a quorum be less than one-third of the shares entitled to vote. Unless the DGCL, certificate of incorporation or bylaws provide for a greater vote, generally the required vote under the DGCL is a majority of the shares present in person or represented by proxy, except for the election of directors which requires a plurality of the votes cast.

Amendment of Governing Instrument

Delaware

Amendment of Certificate of Incorporation. Generally, under the DGCL, the affirmative vote of the holders of a majority of the outstanding stock entitled to vote is required to approve a proposed amendment to the certificate of incorporation, following the adoption of the amendment by the board of directors of the Company, provided that the certificate of incorporation may provide for a greater vote. Under the DGCL, holders of outstanding shares of a class or series are entitled to vote separately on an amendment to the certificate of incorporation if the amendment would have certain consequences, including changes that adversely affect the rights and preferences of such class or series.

Amendment of Bylaws. Under the DGCL, after a corporation has received any payment for any of its stock, the power to adopt, amend or repeal bylaws shall be vested in the stockholders entitled to vote; provided, however, that any corporation may, in its certificate of incorporation, provide that bylaws may be adopted, amended or repealed by the board of directors. The fact that such power has been conferred upon the board of directors shall not divest the stockholders of the power nor limit their power to adopt, amend or repeal the bylaws.

Votes on Mergers, Consolidations and Sales of Assets

Delaware

The DGCL provides that, unless otherwise provided in the certificate of incorporation or bylaws, the adoption of a merger agreement requires the approval of a majority of the outstanding stock of the Company entitled to vote thereon.

Ontario

Under the OBCA, unless the bylaws otherwise provide, the holders of a majority of the shares of an OBCA corporation entitled to vote at a meeting of shareholders, whether present in person or represented by proxy, constitute a quorum.

Ontario

Amendment of Articles. Under the OBCA, amendments to the articles of incorporation generally require the approval of not less than two-thirds of the votes cast by shareholders entitled to vote on the resolution.

Amendment of Bylaws. Under the OBCA, the directors may, by resolution, make, amend or repeal any bylaws that regulate the business or affairs of a corporation and they must submit the bylaw, amendment or repeal to the shareholders at the next meeting of shareholders, and the shareholders may confirm, reject or amend the bylaw, amendment or repeal.

Ontario

Under the OBCA, the approval of at least two-thirds of votes cast by shareholders entitled to vote on the resolution is required for extraordinary corporate actions. Extraordinary corporate actions include: amalgamations; continuances; sales, leases or exchanges of all or substantially all of the property of a corporation; liquidations and dissolutions.

Dissenter's Rights of Appraisal

Delaware

Under the DGCL, a stockholder of a Delaware corporation generally has the right to dissent from, merger or consolidation in which the Delaware corporation is participating, subject to specified procedural requirements, including that such dissenting stockholder does not vote in favor of the merger or consolidation. However, the DGCL does not confer appraisal rights, in certain circumstances, including if the dissenting stockholder owns shares traded on a national securities exchange and will receive publicly traded shares in the merger or consolidation. Under the DGCL, a stockholder asserting appraisal rights does not receive any payment for his or her shares until the court determines the fair value or the parties otherwise agree to a value. The costs of the proceeding may be determined by the court and assessed against the parties as the court deems equitable under the circumstances.

Change of Control Restrictions

Delaware

Unless an issuer opts out of the provisions of Section 203 of the DGCL, Section 203 generally prohibits a public Delaware corporation from engaging in a "business combination" with a holder of 15% or more of the Company's voting stock (as defined in Section 203), referred to as an interested stockholder, for a period of three years after the date of the transaction in which the interested stockholder became an interested stockholder, except as otherwise provided in Section 203. For these purposes, the term "business combination" includes mergers, assets sales and other similar transactions with an interested stockholder.

Ontario

Under the OBCA each of the following matters listed will entitle shareholders to exercise rights of dissent and to be paid the fair value of their shares: (i) any amalgamation with another corporation (other than with certain affiliated corporations); (ii) an amendment to the Company's articles to add, change or remove any provisions restricting the issue, transfer or ownership of that class of shares; (iii) an amendment to the Company's articles to add, change or remove any restriction upon the business or businesses that the Company may carry on; (iv) a continuance under the laws of another jurisdiction; (v) a sale, lease or exchange of all or substantially all the property of the Company other than in the ordinary course of business; and (vi) where a court order permits a shareholder to dissent in connection with an application to the court for an order approving an arrangement.

However, a shareholder is not entitled to dissent if an amendment to the articles is effected by a court order approving a reorganization or by a court order made in connection with an action for an oppression remedy, unless otherwise authorized by the court. The OBCA provides these dissent rights for both listed and unlisted shares.

Under the OBCA, a shareholder may, in addition to exercising dissent rights, seek an oppression remedy for any act or omission of a corporation which is oppressive or unfairly prejudicial to or that unfairly disregards a shareholder's interests.

Ontario

While the OBCA does not contain specific anti-takeover provisions with respect to "business combinations", rules and policies of certain Canadian securities regulatory authorities, including Multilateral Instrument 61-101 – Protection of Minority Security Holders in Special Transactions ("MI 61-101"), contain requirements in connection with, among other things, "related party transactions" and "business combinations", including, among other things, any transaction by which an issuer directly or indirectly engages in the following with a related party: acquires, sells, leases or transfers an asset, acquires the related party, acquires or issues treasury securities, amends the terms of a security if the security is owned by the related party or assumes or becomes subject to a liability or takes certain other actions with respect to debt.

The term “related party” includes directors, senior officers and holders of more than 10% of the voting rights attached to all outstanding voting securities of the issuer or holders of a sufficient number of any securities of the issuer to materially affect control of the issuer.

MI 61-101 requires, subject to certain exceptions, the preparation of a formal valuation relating to certain aspects of the transaction and more detailed disclosure in the proxy material sent to security holders in connection with a related party transaction including related to the valuation. MI 61-101 also requires, subject to certain exceptions, that an issuer not engage in a related party transaction unless the shareholders of the issuer, other than the related parties, approve the transaction by a simple majority of the votes cast.

USE OF PROCEEDS

Unless otherwise specified in a Prospectus Supplement, the net proceeds from the sale of the Securities will be used to continue developing our single-port robotic surgical system, to prepare our regulatory filings in anticipation of commercialization and for general corporate purposes, including funding working capital, potential future acquisitions and capital expenditures.

We anticipate the successful completion of prerequisite live animal and human cadaver studies early in the third quarter of 2019, and plan to file our IDE application with the FDA by the end of the third quarter of 2019. Although timing of our IDE application approval by the FDA, and Institutional Review Board approvals by each IDE hospital site, cannot be precisely known, we continue to target the filing of a 510(k) application with the FDA by year end 2019.

As a result of this timeline, over the course of the next two quarters, ending September 30 and December 31, 2019, we approximate our cash needs to be \$25.7 million and \$16.6 million respectively. We estimate that this capital will be sufficient for us to fund our operations through to December 31, 2019, which is the target date for filing our 510(k) application with the FDA.

Anticipated Use of Funding for Third Quarter of 2019

During the third quarter of 2019, we expect to use \$25.7 million to complete the following milestones:

- Complete and document preclinical live animal (swine) and cadaver studies according to final protocols for FDA submittal;
- Submit IDE application to FDA;
- Obtain ISO 13485 Certification; and
- Receive IDE approval from FDA.

Anticipated Use of Funding for Fourth Quarter of 2019

During the fourth quarter of 2019, we expect to use \$16.6 million to complete the following milestones:

- Complete and document human confirmatory studies under IDE protocol for FDA submittal;

- Submit Technical File to European Notified Body for CE Mark; and
- Submit 510(k) application to FDA.

Anticipated Use of Funding for the Year 2020

We expect that, given the complexity of our robotic surgical system and the approval process for similar systems, it could take approximately six months to receive final 510(k) clearance from the FDA. During the first and second quarters of 2020, our investment in research and development will diminish significantly as we transition to manufacturing and approach commercialization. We approximate our cash requirements to be \$6.1 and \$3.3 million respectively in the first and second quarters of 2020. These funds will be used in connection with preparation for manufacturing and commercialization of our robotic surgical system.

Following receipt of FDA 510(k) clearance, which we project to occur during the third quarter of 2020, we plan to commence commercialization, with initial revenue anticipated to begin during the third or fourth quarter of 2020.

Each Prospectus Supplement will contain further specific information concerning the use of proceeds from the sale of Securities covered in such Prospectus Supplement, and may modify and supersede the expected use of proceeds disclosed in this Prospectus to the extent subsequently required in light of the timeline for achievement of the milestones indicated above. All expenses relating to an Offering of Securities and any compensation paid to underwriters, dealers or agents, as the case may be, will be paid out of our general funds, unless otherwise stated in the applicable Prospectus Supplement.

PLAN OF DISTRIBUTION

We may sell the Securities, separately or together, to or through underwriters or dealers purchasing as principals for public offering and sale by them, and also may sell Securities to one or more other purchasers directly or through agents. Each Prospectus Supplement will set forth the terms of the Offering, including the name or names of any underwriters or agents, if any, the purchase price or prices of the Securities and the proceeds we will receive from the sale of the Securities.

The Securities may be sold from time to time in one or more transactions at a fixed price or prices which may be changed or at market prices prevailing at the time of sale, at prices related to such prevailing market prices or at negotiated prices including sales in transactions that are deemed to be "at-the-market" distributions, including sales made directly on the TSX, Nasdaq or other existing trading markets for the securities. The prices at which the Securities may be offered may vary as between purchasers and during the period of distribution. If, in connection with the Offering of Securities at a fixed price or prices, the underwriters, if any, have made a bona fide effort to sell all of the Securities at the initial offering price fixed in the applicable Prospectus Supplement, the public offering price may be decreased and thereafter further changed, from time to time, to an amount not greater than the initial public offering price fixed in such Prospectus Supplement, in which case the compensation realized by the underwriters will be decreased by the amount that the aggregate price paid by purchasers for the Securities is less than the gross proceeds paid to us by the underwriters.

Underwriters, dealers and agents who participate in the distribution of the Securities may be entitled under agreements to be entered into with us to indemnification by us against certain liabilities, including liabilities under the Securities Act of 1933 and Canadian securities legislation, or to contribution with respect to payments which such underwriters, dealers or agents may be required to make in respect thereof. Such underwriters, dealers and agents may be customers of, engage in transactions with, or perform services for, us in the ordinary course of business.

In connection with any Offering of Securities, except as otherwise set out in a Prospectus Supplement relating to a particular Offering of Securities, the underwriters may over-allot or effect transactions intended to maintain or stabilize the market price of the Securities offered at a level above that which might otherwise prevail in the open market. Such transactions, if commenced, may be discontinued at any time.

DESCRIPTION OF SECURITIES

Common Shares

We may issue Common Shares. Shares may be offered separately or together with other Securities and may be attached to or separate from any other Securities. See “Description of Share Capital” for a description of the general terms that will apply to any Shares issued pursuant to this Prospectus. The Shares to be issued in connection with any Offering hereunder will be authorized by our Board at such time as the Board determines to conduct an Offering hereunder.

Warrants

We may issue Warrants to purchase Shares. This section describes the general terms that will apply to any Warrants issued pursuant to this Prospectus. Warrants may be offered separately or together with other Securities and may be attached to or separate from any other Securities.

Each series of Warrants may be issued under a separate warrant indenture to be entered into between us and one or more banks or trust companies acting as Warrant agent. The Warrant agent will act solely as our agent and will not assume a relationship of agency with any holders of Warrant certificates or beneficial owners of Warrants.

The applicable Prospectus Supplement will include details of the warrant indentures, if any, governing the Warrants being offered. The specific terms of the Warrants, and the extent to which the general terms described in this section apply to those Warrants, will be set out in the applicable Prospectus Supplement. The Prospectus Supplement relating to any Warrants we offer will describe the Warrants and the specific terms relating to the Offering. The description will include, where applicable:

- the designation and aggregate number of Warrants;
- the price at which the Warrants will be offered;
- the currency or currencies in which the Warrants will be offered;
- the date on which the right to exercise the Warrants will commence and the date on which the right will expire;
- the designation, number and terms of the Shares that may be purchased upon exercise of the Warrants, and the procedures that will result in the adjustment of those numbers;
- the exercise price of the Warrants and any provisions for changes or adjustments in the exercise price;
- the designation and terms of the Securities, if any, with which the Warrants will be offered, and the number of Warrants that will be offered with each Security;
- if the Warrants are issued as a Unit with another Security, the date, if any, on and after which the Warrants and the other Security will be separately transferable;
- any minimum or maximum amount of Warrants that may be exercised at any one time;
- any terms, procedures and limitations relating to the transferability, exchange or exercise of the Warrants;

- whether the Warrants will be subject to redemption or call and, if so, the terms of such redemption or call provisions;
- as applicable, material United States and Canadian federal income tax consequences of owning the Warrants; and
- any other material terms or conditions of the Warrants.

Warrant certificates will be exchangeable for new Warrant certificates of different denominations at the office indicated in the Prospectus Supplement. Prior to the exercise of their Warrants, holders of Warrants will not have any of the rights of holders of Shares. We may amend the warrant indenture(s), if any, and the Warrants, without the consent of the holders of the Warrants, to cure any ambiguity, to cure, correct or supplement any defective or inconsistent provision, or in any other manner that will not prejudice the rights of the holders of outstanding Warrants, as a group.

We have not applied and do not intend to apply to list the Warrants on any securities exchange. There will be no market through which the Warrants may be sold and purchasers may not be able to resell the Warrants purchased in the Offering. This may affect the pricing of the Warrants in the secondary market, the transparency and availability of trading prices, the liquidity of the Warrants, and the extent of issuer regulation.

Units

We may issue Units, which may consist of one or more Shares, Warrants or any combination of Securities as is specified in the relevant Prospectus Supplement. In addition, the relevant Prospectus Supplement relating to an Offering of Units will describe all material terms of any Units offered, including, as applicable:

- the designation and aggregate number of Units being offered;
- the price at which the Units will be offered;
- the designation, number and terms of the Securities comprising the Units and any agreement governing the Units;
- the date or dates, if any, on or after which the Securities comprising the Units will be transferable separately;
- whether we will apply to list the Units on any exchange;
- material income tax consequences of owning the Units, including how the purchase price paid for the Units will be allocated among the Securities comprising the Units; and
- any other material terms or conditions of the Units.

TRADING

The Common Shares are listed for trading in Canada on the TSX under the symbol "TMD". The Common Shares are also traded on the Nasdaq in the United States under the symbol "TMDI".

DILUTION

Purchasers of Securities in an Offering may suffer immediate and substantial dilution in the net tangible book value per share of Common Shares. Dilution in net tangible book value per share represents the difference between the amount per Share paid by purchasers in an Offering and the net tangible book value per share of Common Shares immediately after an Offering.

EXPENSES OF ISSUANCE AND DISTRIBUTION

The following is a statement of the expenses (all of which are estimated), other than any underwriting discounts and commissions and expenses reimbursed by us, if any, to be incurred in connection with a distribution of an assumed amount of \$125,000,000 of Securities under the Offering.

SEC registration fees	\$	15,150
Nasdaq Listing fees		(1)
TSX Listing fees		(1)
Printing Expenses		(1)
Legal fees and expenses		(1)
Accountants' fees and expenses		(1)
Transfer agent fees and expenses		(1)
Miscellaneous		(1)
Total	\$	<u>15,150</u>

Notes:

- (1) To be provided by a Prospectus Supplement, or as an exhibit to a Report on Form 6-K that is incorporated by reference into this Prospectus.

DISCLOSURE OF COMMISSION POSITION ON INDEMNIFICATION FOR SECURITIES ACT LIABILITIES

Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act of 1933 and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act of 1933 and will be governed by the final adjudication of such issue.

MATERIAL CONTRACTS

There are no material contracts to which we are a party other than contracts entered into in the ordinary course of business.

EXCHANGE CONTROLS

There are no governmental laws, decrees, regulations or other legislation, including foreign exchange controls, in Canada which may affect the export or import of capital or that may affect the remittance of dividends, interest or other payments to non-resident holders of the Company's securities. Any remittances of dividends to United States residents, however, are subject to a withholding tax pursuant to the Income Tax Act (Canada) and the Canada-U.S. Income Tax Convention (1980), each as amended. Remittances of interest to U.S. residents entitled to the benefits of such Convention are generally not subject to withholding taxes except in limited circumstances involving participating interest payments. Certain other types of remittances, such as royalties paid to U.S. residents, may be subject to a withholding tax depending on all of the circumstances.

CERTAIN INCOME TAX CONSIDERATIONS

Material income tax consequences relating to the purchase, ownership and disposition of any of the Securities offered by this Prospectus will be set forth in the applicable Prospectus Supplement relating to the Offering of those Securities. You are urged to consult your own tax advisors prior to any acquisition of our Securities.

DOCUMENTS ON DISPLAY

Copies of the documents referred to in this Prospectus, or in the registration statement, may be inspected at our registered office at 170 University Avenue, Suite 1000, Toronto, Ontario, Canada, M5H 3B3 during normal business hours.

EXPERTS

The financial statements as of December 31, 2018 and 2017 and for each of the three years in the period ended December 31, 2018 incorporated by reference in this Prospectus have been so incorporated in reliance on the report[s] of BDO Canada, LLP, an independent registered public accounting firm, incorporated herein by reference, given on the authority of said firm as experts in auditing and accounting.

LEGAL MATTERS

Certain Canadian legal matters relating to the validity of the securities offered by this Prospectus are being passed upon by Borden Ladner Gervais LLP, Toronto, Ontario, our Canadian counsel.

INTEREST OF EXPERTS AND COUNSEL

To our knowledge, none of the experts or counsel named in this Prospectus held, at the time they prepared or certified such statement, report or valuation, received after such time or will receive any registered or beneficial interest, direct or indirect, in any securities or other property of our Company or one of our associates or affiliates otherwise than by remuneration as employees or consultants of our business, none of which is contingent on the success of an offering of the Securities.

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

Item 8. Indemnification of Directors and Officers

Under the *Business Corporations Act* (Ontario), we may indemnify a director or officer of the Company, a former director or officer of the Company or another individual who acts or acted at the Company's request as a director or officer, or an individual acting in a similar capacity, of another entity (each of the foregoing, an "individual"), against all costs, charges and expenses, including an amount paid to settle an action or satisfy a judgment, reasonably incurred by the individual in respect of any civil, criminal, administrative, investigative or other proceeding in which the individual is involved because of that association with the Company or other entity, on the condition that (i) such individual acted honestly and in good faith with a view to the best interests of the Company or, as the case may be, to the best interests of the other entity for which the individual acted as a director or officer or in a similar capacity at the Company's request; and (ii) if the matter is a criminal or administrative action or proceeding that is enforced by a monetary penalty, the Company shall not indemnify the individual unless the individual had reasonable grounds for believing that his or her conduct was lawful.

Further, we may, with the approval of a court, indemnify an individual in respect of an action by or on behalf of the Company or other entity to obtain a judgment in its favor, to which the individual is made a party because of the individual's association with the Company or other entity as a director or officer, a former director or officer, an individual who acts or acted at the Company's request as a director or officer, or an individual acting in a similar capacity, against all costs, charges and expenses reasonably incurred by the individual in connection with such action, if the individual fulfills the conditions in (i) and (ii) above. Such individuals are entitled to indemnification from the Company in respect of all costs, charges and expenses reasonably incurred by the individual in connection with the defense of any civil, criminal, administrative, investigative or other proceeding to which the individual is subject because of the individual's association with the Company or other entity as described above, provided the individual seeking an indemnity: (A) was not judged by a court or other competent authority to have committed any fault or omitted to do anything that the individual ought to have done; and (B) fulfills the conditions in (i) and (ii) above.

Our by-laws provide that, Subject to the *Business Corporations Act* (Ontario), the Company shall indemnify a director or officer of the Company, a former director or officer of the Company or another individual who acts or acted at the Company's request as a director or officer, or an individual acting in a similar capacity, of another entity, and such person's heirs and legal representatives, against all costs, charges and expenses, including an amount paid to settle an action or satisfy a judgment, reasonably incurred by the individual in respect of any civil, criminal, administrative, investigative or other proceeding in which the individual is involved because of that association with the Company or other entity, if: (i) the individual acted honestly and in good faith with a view to the best interests of the Company or, as the case may be, to the best interest of the other entity for which the individual acted as a director or officer or in a similar capacity at the Company's request and (ii) in the case of a criminal or administrative action or proceeding that is enforced by a monetary penalty, the person had reasonable grounds for believing that the individual's conduct was lawful.

The Company maintains directors' and officers' liability insurance which insures directors and officers for losses as a result of claims against the directors and officers of the Company in their capacity as directors and officers and also reimburses the Company for payments made pursuant to the indemnity provisions under the by-laws of the Registrant and the *Business Corporations Act* (Ontario).

Item 9. Exhibits**EXHIBIT INDEX**

Exhibit Number	Description
1.1*	Form of Underwriting Agreement for Shares, Warrants and/or Units
3.1	Articles of Amalgamation dated July 28, 2008
3.2	Articles of Amendment dated June 19, 2018
3.3	Amended and Restated By-Law No. 1 dated June 9, 2015
4.1	Specimen Stock Certificate
4.2*	Form of Subscription Agreement
4.3*	Form of Warrant Agreement
4.4*	Form of Warrant Indenture
4.5*	Form of Warrant Certificate
4.6*	Form of Unit Agreement
5.1	Opinion of Borden Ladner Gervais LLP regarding validity of the securities offered
23.1	Consent of Borden Ladner Gervais LLP (included in Exhibit 5.1)
23.2	Consent of BDO Canada LLP
24.1	Powers of Attorney (included in the signature page)

* To be filed by amendment or as an exhibit to a report pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, including any Report of Foreign Private Issuer on Form 6-K, and incorporated herein by reference if necessary or required by the transaction.

Item 10. Undertakings

(a) The undersigned registrant hereby undertakes:

- (1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:
 - (i) To include any prospectus required by Section 10(a)(3) of the Securities Act of 1933;
 - (ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20 percent change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement; and
 - (iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

Provided, however, that paragraphs (a)(1)(i), (a)(1)(ii) and (a)(1)(iii) of this section do not apply if the registration statement is on Form S-3 or Form F-3 and the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by the registrant pursuant to section 13 or section 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the registration statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of the registration statement.
- (2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.
- (3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.
- (4) To file a post-effective amendment to the registration statement to include any financial statements required by Item 8.A. of Form 20-F at the start of any delayed offering or throughout a continuous offering. Financial statements and information otherwise required by Section 10(a)(3) of the Securities Act of 1933 need not be furnished, provided, that the registrant includes in the prospectus, by means of a post-effective amendment, financial statements required pursuant to this paragraph (a)(4) and other information necessary to ensure that all other information in the prospectus is at least as current as the date of those financial statements. Notwithstanding the foregoing, with respect to registration statements on Form F-3, a post-effective amendment need not be filed to include financial statements and information required by Section 10(a)(3) of the Securities Act of 1933 or Rule 3-19 of Regulation S-X if such financial statements and information are contained in periodic reports filed with or furnished to the Commission by the registrant pursuant to section 13 or section 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the Form F-3.
- (5) That, for the purpose of determining liability under the Securities Act of 1933 to any purchaser:
 - (i) Each prospectus filed by the registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and
 - (ii) Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5), or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii), or (x) for the purpose of providing the information required by Section 10(a) of the Securities Act of 1933 shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which that prospectus relates, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof. Provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such effective date.
- (6) That, for the purpose of determining liability of the registrant under the Securities Act of 1933 to any purchaser in the initial distribution of the securities:

The undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:

- (i) Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;
 - (ii) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;
 - (iii) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and
 - (iv) Any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.
- (b) The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act of 1933, each filing of the registrant's annual report pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.
- (c) The undersigned registrant hereby undertakes to supplement the prospectus, after the expiration of the subscription period, to set forth the results of the subscription offer, the transactions by the underwriters during the subscription period, the amount of unsubscribed securities to be purchased by the underwriters, and the terms of any subsequent reoffering thereof. If any public offering by the underwriters is to be made on terms differing from those set forth on the cover page of the prospectus, a post-effective amendment will be filed to set forth the terms of such offering.
- (d) Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act of 1933 and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act of 1933 and will be governed by the final adjudication of such issue.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form F-3 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Toronto, Country of Canada, on July 30, 2019.

TITAN MEDICAL INC.

By: /s/ Stephen Randall
Stephen Randall
Chief Financial Officer

POWERS OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, that each person whose signature appears below hereby constitutes and appoints each of Stephen Randall and David McNally as the undersigned's true and lawful attorney-in-fact and agent, each acting alone, with full power of substitution and resubstitution for such person and in such person's name, place and stead, in any and all capacities, to sign any or all amendments to this registration statement, including post-effective amendments, and any and all additional registration statements (including amendments and post-effective amendments thereto) in connection with any increase in the amount of securities registered with the Securities and Exchange Commission, and to file the same, with all exhibits thereto, and other documents and in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as he or she might or could do in person, and hereby ratifies and confirms all his or her said attorneys-in-fact and agents or any of them or his or her substitute or substitutes may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this registration statement has been signed by the following persons in the capacities and on the dates indicated.

Signature	Capacity	Date
<u>/s/ David McNally</u> David McNally	President, Chief Executive Officer (Principal Executive Officer) and Director	30-Jul-19
<u>/s/ Stephen Randall</u> Stephen Randall	Chief Financial Officer (Principal Financial and Accounting Officer) and Director	30-Jul-19
<u>/s/ Charles W. Federico</u> Charles W. Federico	Director and Chairman	30-Jul-19
<u>/s/ John E. Schellhorn</u> John E. Schellhorn	Director	30-Jul-19
<u>/s/ John. E. Barker</u> John E. Barker	Director	30-Jul-19
<u>/s/ Domenic Serafino</u> Domenic Serafino	Director	30-Jul-19

AUTHORIZED REPRESENTATIVE

Pursuant to the requirements of Section 6(a) of the Securities Act of 1933, the undersigned has signed this Registration Statement, solely in the capacity of the duly authorized representative of Titan Medical Inc. in the United States, on July 30, 2019.

By: /s/ David McNally

Name: David McNally

Title: Chief Executive Officer



Ontario
CERTIFICATE
 This is to certify that these articles
 are effective on

Ministère des
 Services gouvernementaux

CERTIFICAT
 Ceci certifie que les présents statuts
 entrent en vigueur le

Ontario Corporation Number
 Numéro de la société en Ontario
1775066

JULY 28 JUILLET, 2008

[Signature]
 Director / Directrice
 Business Corporations Act / Loi sur les sociétés par actions

Form 4
 Business
 Corporations
 Act

 Formule 4
 Loi sur les
 sociétés par
 actions

**ARTICLES OF AMALGAMATION
 STATUTS DE FUSION**

1. The name of the amalgamated corporation is: (Set out in BLOCK CAPITAL LETTERS)
 Dénomination sociale de la société issue de la fusion: (Écrire en LETTRES MAJUSCULES SEULEMENT):

T	I	T	A	N		M	E	D	I	C	A	L		I	N	C	.																								

2. The address of the registered office is:
 Adresse du siège social:

40 King Street West, Suite 4400 (MP)

Street & Number or R.R. Number & if Multi-Office Building give Room No. /
 Rue et numéro ou numéro de la R.R. et, s'il s'agit d'un édifice à bureaux, numéro du bureau

Toronto

ONTARIO

M	5	H	3	Y	4
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Name of Municipality or Post Office /
 Nom de la municipalité ou du bureau de poste

Postal Code/Code postal

3. Number of directors is: Fixed number OR minimum and maximum
 Nombre d'administrateurs: Nombre fixe OU minimum et maximum

3	10
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4. The director(s) is/are: / Administrateur(s):

<small>First name, middle names and surname Prénom, autres prénoms et nom de famille</small>	<small>Address for service, giving Street & No. or R.R. No., Municipality, Province, Country and Postal Code Domicile élu, y compris la rue et le numéro ou le numéro de la R.R., le nom de la municipalité, la province, le pays et le code postal</small>	<small>Resident Canadian State 'Yes' or 'No' Résident canadien Oui/Non</small>
Reiza Rayman	120 Adelaide Street West, Suite 2400, Toronto, Ontario, M5H 1T1	Yes
Craig Leon	120 Adelaide Street West, Suite 2400, Toronto, Ontario, M5H 1T1	Yes
William Jackson	120 Adelaide Street West, Suite 2400, Toronto, Ontario, M5H 1T1	Yes

4. The director(s) is/are:
Administrateur(s) :

First name, middle names and surname <i>Prénom, autres prénoms et nom de famille</i>	Address for services, giving street & No. or R.R. No., Municipality, Province, Country and Postal code. <i>Domicile élu, y compris la rue et le numéro ou le numéro de la R.R., le nom de la municipalité, la province, le pays et le code postal</i>	Resident Canadian State 'Yes' or 'No' <i>Résident canadien Oui/Non</i>
Martin Bernoltz	120 Adelaide Street West, Suite 2400, Toronto, Ontario, M5H 1T1	Yes

5. Method of amalgamation, check A or B
Méthode choisie pour la fusion – Cocher A ou B :

A - **Amalgamation Agreement / Convention de fusion :**

The amalgamation agreement has been duly adopted by the shareholders of each of the amalgamating corporations as required by subsection 176 (4) of the *Business Corporations Act* on the date set out below.
Les actionnaires de chaque société qui fusionne ont dûment adopté la convention de fusion conformément au paragraphe 176(4) de la Loi sur les sociétés par actions à la date mentionnée ci-dessous.

or
ou

B - **Amalgamation of a holding corporation and one or more of its subsidiaries or amalgamation of subsidiaries / Fusion d'une société mère avec une ou plusieurs de ses filiales ou fusion de filiales :**

The amalgamation has been approved by the directors of each amalgamating corporation by a resolution as required by section 177 of the *Business Corporations Act* on the date set out below.
Les administrateurs de chaque société qui fusionne ont approuvé la fusion par voie de résolution conformément à l'article 177 de la Loi sur les sociétés par actions à la date mentionnée ci-dessous.

The articles of amalgamation in substance contain the provisions of the articles of incorporation of
Les statuts de fusion reprennent essentiellement les dispositions des statuts constitutifs de

Titan Medical Inc.

and are more particularly set out in these articles.
et sont énoncés textuellement aux présents statuts.

Names of amalgamating corporations <i>Dénomination sociale des sociétés qui fusionnent</i>	Ontario Corporation Number <i>Numéro de la société en Ontario</i>	Date of Adoption/Approval <i>Date d'adoption ou d'approbation</i>		
		Year <i>année</i>	Month <i>mois</i>	Day <i>jour</i>
Titan Medical Inc.	1775065	2008	07	28
KAM Capital Corp.	2155769	2008	07	28

6. Restrictions, if any, on business the corporation may carry on or on powers the corporation may exercise.
Limites, s'il y a lieu, imposées aux activités commerciales ou aux pouvoirs de la société.

none

7. The classes and any maximum number of shares that the corporation is authorized to issue:
Catégories et nombre maximal, s'il y a lieu, d'actions que la société est autorisée à émettre :

unlimited number of Common shares

8. Rights, privileges, restrictions and conditions (if any) attaching to each class of shares and directors authority with respect to any class of shares which may be issued in series:

Droits, privilèges, restrictions et conditions, s'il y a lieu, rattachés à chaque catégorie d'actions et pouvoirs des administrateurs relatifs à chaque catégorie d'actions qui peut être émise en série :

none

9. The issue, transfer or ownership of shares is/is not restricted and the restrictions (if any) are as follows:
L'émission, le transfert ou la propriété d'actions est/n'est pas restreint. Les restrictions, s'il y a lieu, sont les suivantes :

No securities of the Corporation, other than non-convertible debt securities, if any, shall be transferred without (i) the express approval of the board of directors of the Corporation, to be signified by a resolution duly passed at a meeting of the board of directors or by instrument or instruments in writing signed by all of the directors, or (ii) the express approval of the shareholders of the Corporation entitled to vote at a meeting, to be signified by a resolution duly passed at a meeting of the shareholders or by instrument or instruments in writing signed by all of the shareholders.

10. Other provisions, (if any):
Autres dispositions, s'il y a lieu :

The directors may from time to time, in such amount and on such terms as they deem expedient:

- a) borrow money on the credit of the Corporation;
- b) issue, sell or pledge debt obligations (including bonds, debentures, notes or other similar obligations, secured or unsecured) of the Corporation; and
- c) charge, mortgage, hypothecate or pledge all or any of the currently owned or subsequently acquired real or personal, movable or immovable, property of the Corporation, including book debts, rights, powers, franchises and undertaking, to secure any debt obligations or money borrowed, or other debt or liability of the Corporation.

The directors may from time to time delegate to such one or more of the directors and officers of the Corporation as may be designated by the directors all or any of the powers conferred on the directors above to such extent and in such manner as the directors shall determine with respect to each such delegation.

11. The statements required by subsection 178(2) of the *Business Corporations Act* are attached as Schedule "A".
Les déclarations exigées aux termes du paragraphe 178(2) de la Loi sur les sociétés par actions constituent l'annexe A.
12. A copy of the amalgamation agreement or directors' resolutions (as the case may be) is/are attached as Schedule "B".
Une copie de la convention de fusion ou les résolutions des administrateurs (selon le cas) constitue(nt) l'annexe B.

These articles are signed in duplicate.
 Les présents statuts sont signés en double exemplaire.

Name and **original signature** of a director or authorized signing officer of each of the amalgamating corporations. Include the name of each corporation, the signatories name and description of office (e.g. president, secretary). **Only a director or authorized signing officer can sign on behalf of the corporation.** / *Nom et signature originale d'un administrateur ou d'un signataire autorisé de chaque société qui fusionne. Indiquer la dénomination sociale de chaque société, le nom du signataire et sa fonction (p. ex. : président, secrétaire). Seul un administrateur ou un dirigeant habilité peut signer au nom de la société.*

Titan Medical Inc.

	Names of Corporations / <i>Dénomination sociale des sociétés</i>	
<i>By / Par</i>	Craig Leon	Chief Executive Officer
<i>Signature / Signature</i>	<i>Print name of signatory / Nom du signataire en lettres moulées</i>	<i>Description of Office / Fonction</i>

KAM Capital Corp.

	Names of Corporations / <i>Dénomination sociale des sociétés</i>	
<i>By / Par</i>	Craig Leon	Chief Executive Officer
<i>Signature / Signature</i>	<i>Print name of signatory / Nom du signataire en lettres moulées</i>	<i>Description of Office / Fonction</i>

	Names of Corporations / <i>Dénomination sociale des sociétés</i>	
<i>By / Par</i>		
<i>Signature / Signature</i>	<i>Print name of signatory / Nom du signataire en lettres moulées</i>	<i>Description of Office / Fonction</i>

	Names of Corporations / <i>Dénomination sociale des sociétés</i>	
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<i>Signature / Signature</i>	<i>Print name of signatory / Nom du signataire en lettres moulées</i>	<i>Description of Office / Fonction</i>


	Names of Corporations / <i>Dénomination sociale des sociétés</i>	
<i>By / Par</i>		
<i>Signature / Signature</i>	<i>Print name of signatory / Nom du signataire en lettres moulées</i>	<i>Description of Office / Fonction</i>

SCHEDULE "A"

STATEMENT OF DIRECTOR OR OFFICER

1. I am the Chief Executive Officer of **Titan Medical Inc.** and as such have knowledge of its affairs.
2. I am the Chief Executive Officer of **KAM Capital Corp.** and as such have knowledge of its affairs.
3. I have conducted such examinations of the books and records of **Titan Medical Inc.** and of **KAM Capital Corp.** (the "Amalgamating Corporations") and have made such enquiries and investigations as are necessary to enable me to make this declaration.
4. There are reasonable grounds for believing that:
 - (a) each of the Amalgamating Corporations is and the corporation to be formed by their amalgamation (the "Amalgamated Corporation") will be able to pay its liabilities as they become due;
 - (b) the realizable value of the assets of the Amalgamated Corporation will not be less than the aggregate of its liabilities and stated capital of all classes; and
 - (c) no creditor of either of the Amalgamating Corporations will be prejudiced by such amalgamation.

DATED as of the 28th day of July, 2008.



Craig Leon

SCHEDULE "B" CERTIFICATION
KAM CAPITAL CORP. (the "Corporation")

RECITAL:

The Corporation wishes to amalgamate with its wholly-owned subsidiary, **Titan Medical Inc.** (the "Subsidiary"), under the *Business Corporations Act* (Ontario) (the "Act").


RESOLVED that:

1. the Corporation amalgamate with the Subsidiary and continue as one corporation (the "Amalgamated Corporation") under subsection 177(1) of the Act effective July ____, 2008;
2. except as may be prescribed, the articles of amalgamation of the Amalgamated Corporation be the same as the articles of the Corporation;
3. the by-laws of the Amalgamated Corporation be the same as the by-laws of the Corporation;
4. on the issuance of a Certificate of Amalgamation under subsection 178(4) of the Act:
 - (a) all shares of the Subsidiary be cancelled without any repayment of capital;
 - (b) no securities be issued and no assets be distributed by the Amalgamated Corporation in connection with the amalgamation; and
 - (c) the stated capital of the Amalgamated Corporation be the same as the stated capital of the Corporation; and
5. any director or officer of the Corporation is authorized and directed to do on behalf of the Corporation any and all acts and things and execute all documents as such director or officer considers necessary, desirable or useful to carry out and give effect to the amalgamation of the Corporation and the Subsidiary and to this resolution.

THIS resolution is consented to in writing by the undersigned.

CERTIFIED to be a true copy of a resolution of the directors of **KAM Capital Corp.** signed by all the directors on the 28 day of July, 2008

DATED as of the 28th day of July, 2008.



Craig Leon - Chief Executive Officer

SCHEDULE "B" CERTIFICATION
TITAN MEDICAL INC. (the "Corporation")

RECITAL:

The Corporation is a wholly-owned subsidiary of, and wishes to amalgamate with, **KAM Capital Corp.** ("Holdco"), under the *Business Corporations Act* (Ontario) (the "Act").


RESOLVED that:

1. the Corporation amalgamate with Holdco and continue as one corporation (the "Amalgamated Corporation") under subsection 177(1) of the Act effective July , 2008.;
2. except as may be prescribed, the articles of amalgamation of the Amalgamated Corporation be the same as the articles of Holdco;
3. the by-laws of the Amalgamated Corporation be the same as the by-laws of Holdco;
4. on the issuance of a Certificate of Amalgamation under subsection 178(4) of the Act:
 - (a) all shares of the Corporation be cancelled without any repayment of capital;
 - (b) no securities be issued and no assets be distributed by the Amalgamated Corporation in connection with the amalgamation; and
 - (c) the stated capital of the Amalgamated Corporation be the same as the stated capital of Holdco; and
5. any director or officer of the Corporation is authorized and directed to do on behalf of the Corporation any and all acts and things and execute all documents as such director or officer considers necessary, desirable or useful to carry out and give effect to the amalgamation of the Corporation and Holdco and to this resolution.

THIS resolution is consented to in writing by the undersigned.

CERTIFIED to be a true copy of a resolution of the director of **Titan Medical Inc.** signed by the directors on the 28 day of July, 2008

DATED as of the 28th day of July, 2008.



Craig Leon – Chief Executive Officer

BY-LAWS

TITAN MEDICAL INC.
(the "Corporation")

AMENDED AND RESTATED BY-LAW NO. 1

A by-law relating generally to the transaction of the business and affairs
of
TITAN MEDICAL INC.

CONTENTS

Section 1	-	Interpretation
Section 2	-	Business of the Corporation
Section 3	-	Borrowing and Securities
Section 4	-	Directors
Section 5	-	Delegation
Section 6	-	Officers
Section 7	-	Protection of Directors, Officers and Others
Section 8	-	Shares
Section 9	-	Dividends and Rights
Section 10	-	Meetings of Shareholders
Section 11	-	Notices
Section 12	-	Effective Date

BE IT ENACTED as a by-law of the Corporation as follows:

1. INTERPRETATION

1.1 **Definitions** - In the by-laws of the Corporation, unless the context otherwise requires, capitalized terms used but not defined in this By-Law shall have the meanings attributed to them in the Act, except that:

"Act" means the *Business Corporations Act* (Ontario), and any statute that may be substituted therefor, as amended, restated or in effect from time to time;

"appoint" includes "elect" and vice-versa;

"**articles**" means the original or restated articles of incorporation, articles of amendment, articles of amalgamation, articles of continuance, articles of reorganization, articles of arrangement, articles of dissolution or articles of revival and includes any amendments thereto;

"**Board**" means the board of directors of the Corporation;

"**by-laws**" means this by-law and all other by-laws of the Corporation from time to time in force and effect;

"**Corporation**" means Titan Medical Inc.;

"**meeting of shareholders**" includes an annual meeting of shareholders or a special meeting of shareholders; "**special meeting of shareholders**" includes a meeting of any class or classes of shareholders and a special meeting of all shareholders entitled to vote at an annual meeting of shareholders;

"**non-business day**" means Saturday, Sunday and any other day that is a holiday as defined in the *Interpretation Act* (Canada) and any statute that may be substituted therefor, as amended, restated or in effect from time to time;

"**recorded address**" means:

- (i) in the case of a shareholder, that person's address as recorded in the securities register;
- (ii) in the case of joint shareholders, the address appearing in the securities register in respect of such joint holding or the first address so appearing if there are more than one; and
- (iii) in the case of a director, officer, auditor or member of a committee of the Board, that individual's latest address as recorded in the records of the Corporation;

"**Regulations**" means the regulations made under the Act, as amended, restated or in effect from time to time;

"**signing officer**" means, in relation to any instrument, any person authorized to sign the instrument on behalf of the Corporation by Section 2.2 or by a resolution passed pursuant thereto; and

"**unanimous shareholder agreement**" means:

- (a) an otherwise lawful written agreement among all the shareholders of the Corporation, or among all the shareholders and one or more persons who are not shareholders, that restricts, in whole or in part, the powers of the directors to manage, or supervise the management of, the business and affairs of the Corporation, as amended, supplemented, restated and replaced from time to time in accordance with its provisions; or
-

- (b) a written declaration made by a person who is the beneficial owner of all of the issued shares of the Corporation that restricts in whole or in part, the powers of the directors to manage, or supervise the management of, the business and affairs of the Corporation, as amended, supplemented, restated and replaced from time to time in accordance with its provisions.

1.1 **Interpretation** – Words in the singular include the plural and vice-versa, words in one gender include all genders, and words importing persons include individuals, bodies corporate, partnerships, trusts and unincorporated organizations.

2. BUSINESS OF THE CORPORATION

2.1 **Corporate Seal** - The Corporation may have one or more different corporate seals which may be adopted or changed from time to time by the Board, on which the name of the Corporation appears in the language or one or more of the languages set out in the articles.

2.2 **Execution of Instruments** - Deeds, transfers, assignments, contracts, obligations, certificates and other instruments may be signed on behalf of the Corporation by any one of the directors or officers. In addition, the Board may from time to time direct the manner in which and the person or persons by whom any particular instrument or class of instruments may or shall be signed. Any signing officer may affix the corporate seal (if any) to any instrument. Any signing officer may certify a copy of any instrument, resolution, by-law or other document of the Corporation to be a true copy thereof.

2.3 **Execution in Counterpart** - Any articles, notice, resolution, requisition, statement or other document required or permitted to be executed in several documents of like form each of which is executed by all persons required or permitted, as the case may be, to do so, shall be deemed to constitute one document and to bear date as of the date of execution thereof by the last person.

2.4 **Banking Arrangements** - The banking business of the Corporation including, without limitation, the borrowing of money and the giving of security therefor, shall be transacted with such banks, trust companies or other bodies corporate or organizations as may from time to time be designated by or under the authority of the Board. Such banking business or any part thereof shall be transacted under such agreements, instructions and delegations of powers as the Board may from time to time prescribe or authorize.

2.5 **Voting Rights in Other Bodies Corporate** - The signing officers of the Corporation may execute and deliver proxies and arrange for the issuance of voting certificates or other evidence of the right to exercise the voting rights attaching to any securities held by the Corporation. Such instruments, certificates or other evidence shall be in favour of such person or persons as may be determined by the officers executing such proxies or arranging for the issuance of voting certificates or such other evidence of the right to exercise such voting rights. In addition, the Board may from time to time direct the manner in which and the person or persons by whom any particular voting rights or class of voting rights may or shall be exercised.

2.6 **Withholding Information from Shareholders** - Subject to the Act, no shareholder shall be entitled to discovery of any information respecting any details or conduct of the Corporation's business which, in the opinion of the Board, it would be inexpedient in the interests of the shareholders or the Corporation to communicate to the public. The Board may from time to time determine whether and to what extent and at what time and place and under what conditions or regulations the accounts, records and documents of the Corporation or any of them shall be open to the inspection of shareholders and no shareholder shall have any right of inspecting any account, record or document of the Corporation except as conferred by the Act or authorized by the Board or by resolution passed at a meeting of shareholders.

3. **BORROWING AND SECURITIES**

3.1 **Borrowing Power** - Without limiting the borrowing powers of the Corporation as provided by the Act, but subject to the articles and any unanimous shareholder agreement, the Board may from time to time on behalf of the Corporation, without authorization of the shareholders:

3.1.1 borrow money on the credit of the Corporation;

- (a) issue, reissue, sell, pledge or hypothecate bonds, debentures, notes or other evidences of indebtedness of the Corporation, whether secured or unsecured;
- (b) give a guarantee on behalf of the Corporation to secure performance of any present or future indebtedness, liability or obligation of any person; and
- (c) mortgage, hypothecate, pledge or otherwise create a security interest in all or any currently owned or subsequently acquired real or personal, movable or immovable, property of the Corporation including book debts, rights, powers, franchises and undertakings, to secure any such bonds, debentures, notes or other evidences of indebtedness or guarantee or any other present or future indebtedness, liability or obligation of the Corporation.

The Board may from time to time delegate to one or more of the directors and officers of the Corporation as may be designated by the Board all or any of the powers conferred on the Board in this Section 3.1 to the extent and in the manner as the Board shall determine at the time of such delegation.

Nothing in this Section limits or restricts the borrowing of money by the Corporation on bills of exchange or promissory notes made, drawn, accepted or endorsed by or on behalf of the Corporation.

3.2 **Delegation** - Subject to any unanimous shareholder agreement, the Board may from time to time delegate to a committee of the Board, a director or an officer of the Corporation or any other person as may be designated by the Board all or any of the powers conferred on the Board by Section 3.1 or by the Act to such extent and in such manner as the Board shall determine at the time of each such delegation.

4. DIRECTORS

4.1 **Number of Directors and Quorum** – Subject to the articles, the Board shall consist of the number of directors specified in the articles, except that if the articles provide for a minimum and maximum number of directors, the board shall consist of the number of directors determined from time to time by a special resolution of the shareholders (or, if the directors are empowered by a special resolution to determine the number, by a resolution of the Board) within such minimum and maximum. Subject to Section 4.18, a majority of the number of directors so specified or determined shall constitute a quorum at any meeting of the Board.

4.2 **Qualification** - No person shall be qualified for election as a director:

4.2.1 if the person is less than 18 years of age;

4.2.2 if the person has been found under the *Substitute Decisions Act*, 1992 (Ontario) or under the *Mental Health Act* (Ontario) to be incapable of managing property or who has been found to be incapable by a court in Canada or elsewhere;

4.2.3 if the person is not an individual; or

4.2.4 if the person has the status of a bankrupt.

Subject to the articles, a director need not be a shareholder. Subject to the Act, at least 25% of the directors must be resident Canadians. If the Corporation has less than four directors, at least one director must be a resident Canadian.

4.3 **Election and Term** - The election of directors shall take place at the first meeting of shareholders and at each annual meeting of shareholders and all the directors then in office shall retire but, if qualified, shall be eligible for re-election. The election shall be by resolution. If an election of directors is not held at the proper time, the incumbent directors shall continue in office until their successors are elected.

4.4 **Removal of Directors** - Subject to the Act, the shareholders may by ordinary resolution passed at an annual or special meeting remove any director from office and the vacancy created by such removal may be filled at the same meeting failing which it may be filled by the Board.

4.5 **Vacation of Office** - A director ceases to hold office when such director: (a) dies or, subject to the Act, resigns; (b) is removed from office by the shareholders in accordance with the Act; or (c) ceases to be qualified for election as a director in accordance with the Act. A resignation of a director becomes effective at the time a written resignation is sent or delivered to the Corporation or the time specified in such resignation, whichever is later.

4.6 **Vacancies** - Subject to the Act and the articles, a quorum of the Board may fill a vacancy in the Board, except a vacancy resulting from:

4.6.1 an increase in the number of directors, unless the directors are authorized to determine the number of directors and the appointment of an additional director would not result in a total number of directors greater than one and one-third times the number of directors required to have been elected at the last annual meeting of shareholders;

4.6.2 an increase in the maximum number of directors; or

4.6.3 a failure of the shareholders to elect the number of directors required to be elected at any meeting of shareholders.

In the absence of a quorum of the Board, or if the vacancy has arisen from a failure of the shareholders to elect the number of directors required to be elected at any meeting of shareholders, the Board shall forthwith call a special meeting of shareholders to fill the vacancy. If the Board fails to call such meeting or if there are no directors then in office, any shareholder may call the meeting.

4.7 **Action by the Board** - Subject to any unanimous shareholder agreement, the Board shall manage, or supervise the management of, the business and affairs of the Corporation. Subject to Section 4.8, the powers of the Board may be exercised by resolution passed at a meeting at which a quorum is present or by resolution in writing signed by all the directors entitled to vote on that resolution at a meeting of the Board. Where there is a vacancy in the Board, the remaining directors may exercise all the powers of the Board so long as a quorum remains in office. Where the Corporation has only one director, that director may constitute a meeting.

4.8 **Meeting by Communications Facilities** - If all the directors of the Corporation consent, a meeting of the Board or of a committee of the Board may be held by means of such telephone, electronic or other communications facilities as permit all persons participating in the meeting to communicate with each other simultaneously and instantaneously, and a director participating in such a meeting by such means is deemed to be present at the meeting. Any such consent shall be effective whether given before or after the meeting to which it relates and may be given with respect to all meetings of the Board and committees of the Board. If a majority of directors participating in a meeting held under this Section are then in Canada, the meeting shall be deemed to be held in Canada.

4.9 **Place of Meetings** - Meetings of the Board may be held at any place within or outside Ontario. In any financial year of the Corporation, a majority of the meetings of the Board need not be held in Canada.

4.10 **Calling of Meetings** - Meetings of the Board shall be held from time to time at such time and at such place as the Board, the chairman of the Board, the chief executive officer, the president, a vice-president or any two directors may determine.

4.11 **Notice of Meeting** - Notice of the time and place of each meeting of the Board shall be given in the manner provided in Section 11.1 to each director not less than 48 hours before the time when the meeting is to be held. A notice of a meeting of directors need not specify the purpose of or the business to be transacted at the meeting except where the Act requires such purpose or business to be specified. A director may in any manner waive notice of a meeting of the Board, and attendance of a director at a meeting constitutes a waiver of notice, except where the director attends a meeting for the express purpose of objecting to the transaction of any business on the grounds that the meeting is not lawfully called.

4.12 **First Meeting of New Board** - Provided a quorum of directors is present, each newly elected Board may without notice hold its first meeting immediately following the meeting of shareholders at which such Board is elected.

4.13 **Adjourned Meeting** - Notice of an adjourned meeting of the Board is not required if the time and place of the adjourned meeting is announced at the original meeting.

4.14 **Regular Meetings** - The Board may appoint a day or days in any month or months for regular meetings of the Board at a place and hour to be named. A copy of any resolution of the Board fixing the place and time of such regular meetings shall be sent to each director forthwith after being passed, but no other notice shall be required for any such regular meeting except where the Act requires the purpose thereof or the business to be transacted thereat to be specified.

4.15 **Meetings Without Notice**. A meeting of the Board may be held at any time and place permitted by the Act or the articles or the by-laws without notice or on shorter notice than that provided for in this by-law, and proceedings at such meeting shall not be invalidated if all or if all the directors are present in person (except where a director attends the meeting for the express purpose of objecting to the transaction of any business on the grounds that the meeting is not lawfully called) or if not so present have received notice, or before or after the meeting or the time prescribed for the notice of such meeting, in writing waive notice of or accept short notice of such meeting.

4.16 **Chairman** - The chairman of any meeting of the Board shall be the first mentioned of such of the following officers as have been appointed and who is a director and is present at the meeting: chairman of the Board, chief executive officer, president, or a vice-president. If no such officer is present, the directors present shall choose one of their number to be chairman.

4.17 **Votes to Govern** - At all meetings of the Board every question shall be decided by a majority of the votes cast on the question of those directors entitled to vote. In case of an equality of votes the chairman of the meeting shall not be entitled to a second or casting vote.

4.18 **Conflict of Interest** - A director or officer who:

4.18.1 is a party to; or

4.18.2 is a director or an officer of, or has a material interest in, any person who is a party to;

a material contract or transaction or proposed material contract or transaction with the Corporation shall disclose the nature and extent of such director's or officer's interest at the time and in the manner provided by the Act. Any such contract or transaction or proposed material contract or transaction shall be referred to the Board or shareholders for approval in accordance with the Act even if such contract or proposed material contract or transaction is one that in the ordinary course of the Corporation's business would not require approval by the Board or shareholders, and a director interested in a contract or transaction so referred to the Board shall not attend any part of a meeting of the Board during which the contract or transaction is discussed and shall not vote on any resolution to approve such contract or transaction except as provided by the Act.

4.19 **Remuneration and Expenses** - Subject to the articles and any unanimous shareholder agreement, the directors shall be paid such remuneration for their services as the Board may from time to time determine. The directors shall also be entitled to be reimbursed for travelling and other expenses properly incurred by them in attending meetings of the Board or any committee thereof. Nothing herein contained shall preclude any director from serving the Corporation in any other capacity and receiving remuneration therefor in that capacity.

4.20 **Nomination of Directors** - Subject to the provisions of the Act and the articles of the Corporation, only persons who are nominated in accordance with the following procedures shall be eligible for election as directors of the Corporation. Nominations of an individual for election to the board may be made at any annual general meeting of shareholders, or at any special meeting of shareholders if one of the purposes for which such meeting was called is the election of directors of the Corporation:

- (a) by or at the discretion of the Board or an authorized officer of the Corporation, including pursuant to a notice of meeting;
- (b) by or at the direction or request of one or more shareholders pursuant to a proposal made in accordance with the provisions of the Act or a requisition to call a shareholders meeting made in accordance with the provisions of the Act; or
- (c) by any person (a "**Nominating Shareholder**") who, (i) at the close of business on the date of the giving of the notice provided for below in this Section 4.20 and on the record date for notice of such meeting, is entered in the securities register as a holder of one or more shares carrying the right to vote at such meeting or who beneficially owns shares that are entitled to be voted at such meeting, and (ii) complies with the notice procedures set forth below in this Section 4.20.

In addition to any other applicable requirements, for a nomination to be made by a Nominating Shareholder, the Nominating Shareholder must have given timely notice thereof in proper written form to the Secretary of the Corporation at the registered office of the Corporation in accordance with this Section 4.20.

To be timely, a Nominating Shareholder's notice to the Secretary of the Corporation must be made:

- (a) in the case of an annual general meeting of shareholders, not less than 30 nor more than 65 days prior to the date of the annual general meeting of shareholders; provided, however, that in the event that the annual general meeting of shareholders is to be held on a date that is less than 40 days after the date on which the initial Public Announcement (as defined below) of the date of the annual general meeting of shareholders was made, notice by the Nominating Shareholder may be made not later than the close of business on the 10th day following such Public Announcement; and
 - (b) in the case of a special meeting of shareholders that is not also an annual general meeting but is called for the purpose of electing directors of the Corporation (whether or not called for other purposes), not later than the close of business on the 15th day following the day on which the initial Public Announcement of the special meeting of shareholders was made.
-

Notwithstanding the foregoing, the Board may, in its sole discretion, waive any requirement in this Section 4.20. In no event shall any adjournment or postponement of a meeting of shareholders of the Corporation or the announcement thereof commence a new time period for the giving of a Nominating Shareholder's notice.

To be in proper written form, a Nominating Shareholder's notice to the Secretary of the Corporation must set forth:

- (a) as to each individual whom the Nominating Shareholder proposes to nominate for election as a director:
 - (i) his or her name, age, business address and residence address;
 - (ii) his or her principal occupation or employment;
 - (iii) the class or series and number of shares in the capital of the Corporation which are controlled or over which direction is exercised, directly or indirectly, or which are owned beneficially or of record by him or her as of the record date for the meeting of shareholders (if such date shall then have been made publicly available by the Corporation and shall have occurred) and as of the date of such notice;
 - (iv) a statement as to whether he or she would be "independent" of the Corporation (within the meaning of Sections 1.4 and 1.5 of National Instrument 52-110 – Audit Committees of the Canadian Securities Administrators, as such provisions may amended from time to time) if elected as a director of the Corporation at such meeting and the reasons and basis for such determination; and
 - (v) any other information relating to him or her that would be required to be disclosed in a dissident's proxy circular in connection with solicitations of proxies for election of directors pursuant to the Act and Applicable Securities Laws (as defined below); and
 - (b) as to the Nominating Shareholder giving the notice:
 - (i) any proxy, contract, arrangement, understanding or relationship pursuant to which such Nominating Shareholder has the right to vote any shares in the capital of the Corporation;
 - (ii) any other information relating to such Nominating Shareholder that would be required to be made in a dissident's proxy circular in connection with solicitations of proxies for election of directors pursuant to the Act and Applicable Securities Laws; and
 - (iii) the class or series and number of shares in the capital of the Corporation which are controlled or over which direction is exercised, directly or indirectly, or which are owned beneficially or of record by the Nominating Shareholder as of the record date for the meeting of shareholders (if such date shall then have been made publicly available by the Corporation and shall have occurred) and as of the date of such notice.
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The Corporation may require any proposed nominee to furnish such other information as may reasonably be required by the Corporation to determine the eligibility of such proposed nominee to serve as an independent director of the Corporation or that could be material to a reasonable shareholder's understanding of the independence, or lack thereof, of such proposed nominee.

No individual shall be eligible for election as a director of the Corporation unless nominated in accordance with the provisions of this Section 4.20; provided, however, that nothing in this Section 4.20 shall be deemed to preclude discussions by a shareholder of the Corporation (as distinct from the nomination of directors) at a meeting of shareholders of any matter in respect of which it would have been entitled to submit a proposal pursuant to the provisions of the Act. The chairman of the meeting shall have the power and duty to determine whether a nomination was made in accordance with the procedures set forth in the foregoing provisions and, if any proposed nomination is not determined to be in compliance with such foregoing provisions, to declare that such defective nomination shall be disregarded.

For purposes of this Section 4.20:

- (a) "Applicable Securities Laws" means the applicable securities legislation of each relevant province and territory of Canada, as amended from time to time, the rules, regulations and forms made or promulgated under any such statute and the published national instruments, multilateral instruments, policies, statements, bulletins and notices of the securities commission and similar regulatory authority of each province and territory of Canada; and
- (b) "Public Announcement" shall mean disclosure in a press release reported by a national news service in Canada, or in a document publicly filed by the Corporation under its profile on the System of Electronic Document Analysis and Retrieval at www.sedar.com.

Notwithstanding any other provision of the by-laws, notice given to the Secretary of the Corporation pursuant to this Section 4.20 may only be given by personal delivery or by facsimile transmission, and shall be deemed to have been given and made only at the time it is served by personal delivery or sent by facsimile transmission (provided that receipt of confirmation of such transmission has been received) to the Secretary of the Corporation at the address of the registered office of the Corporation; provided, that if such delivery or transmission is made on a day which is not a business day or later than 5:00 p.m. (Toronto time) on a day which is a business day, then such delivery or transmission shall be deemed to have been made on the subsequent day that is a business day.

5. DELEGATION

5.1 **Committee of Directors** - The Board may appoint a committee of directors and delegate to such committee any of the powers of the Board except those which, under the Act, a committee of directors has no authority to exercise.

5.2 **Transaction of Business** - The powers of a committee of directors may be exercised by a meeting at which a quorum is present or by resolution in writing signed by all the members of such committee who would have been entitled to vote on that resolution at a meeting of the committee. Meetings of such committee may be held at any place within or outside Ontario.

5.3 **Procedure** - Unless otherwise determined by the Board, each committee shall have the power to fix its quorum at not less than a majority of its members, to elect its chairman and to regulate its procedure.

6. OFFICERS

6.1 **Appointment** - Subject to the articles and any unanimous shareholder agreement, the Board may from time to time appoint a chairman of the Board, chief executive officer, president, chief financial officer, one or more vice-presidents (to which title may be added words indicating seniority or function), a secretary, a treasurer and such other officers as the Board may determine, including one or more assistants to any of the officers so appointed. The Board may specify the duties of and, in accordance with this by-law and subject to the Act, the articles and any unanimous shareholder agreement, delegate to such officers powers to manage the business and affairs of the Corporation. Subject to Section 6.2, an officer may but need not be a director and one person may hold more than one office.

6.2 **Chairman of the Board** - The Board may from time to time also appoint a chairman of the Board who shall be a director. If appointed, the Board may assign to the chairman any of the powers and duties that are by any provision of this by-law assigned to the chief executive officer; and the chairman shall, subject to the Act, have such other powers and duties as the Board may specify. During the absence or disability of the chairman of the Board, the chairman's duties shall be performed and the chairman's powers exercised by the president.

6.3 **Chief Executive Officer** - If appointed, the chief executive officer may, but need not be, the president and, subject to the authority of the Board, shall have general supervision of the business of the Corporation; and the chief executive officer shall have such other powers and duties as the Board may specify. During the absence or disability of the chairman, or if no chairman has been appointed, the chief executive officer shall also have the powers and duties of that office.

6.4 **Chief Financial Officer** - If appointed, the chief financial officer shall keep proper accounting records in compliance with the Act and shall be responsible for the deposit of money, the safekeeping of securities and the disbursement of the funds of the Corporation; the chief financial officer shall render to the Board whenever required an account of all transactions as chief financial officer and of the financial position of the Corporation; and shall have such other powers and duties as the Board or the chief executive officer may specify.

6.5 **President and Vice-President** - If appointed, the president and a vice-president shall have such powers and duties as the Board or the chief executive officer may specify.

6.6 **Secretary** - If appointed, the secretary shall attend and be the secretary of all meetings of the Board, shareholders and committees of the Board and shall enter or cause to be entered in records kept for that purpose minutes of all proceedings thereat; the secretary shall give or cause to be given, as and when instructed, all notices to shareholders, directors, officers, auditors and members of committees of the Board; the secretary shall be the custodian of the stamp or mechanical device generally used for affixing the corporate seal of the Corporation and of all books, papers, records, documents and instruments belonging to the Corporation, except when some other officer or agent has been appointed for that purpose; and the secretary shall have such other powers and duties as the Board or the chief executive officer may specify.

6.7 **Treasurer** - If appointed, the treasurer shall have such powers and duties as the Board or the chief financial officer may specify. During the absence or disability of the chief financial officer, or if no chief financial officer has been appointed, the treasurer shall have the powers and duties of that office.

6.8 **Powers and Duties of Other Officers** - The powers and duties of all other officers shall be such as the terms of their engagement call for or as the Board or the chief executive officer may specify. Any of the powers and duties of an officer to whom an assistant has been appointed may be exercised and performed by such assistant, unless the Board or the chief executive officer otherwise directs.

6.9 **Variation of Powers and Duties** - The Board may from time to time and subject to the Act, vary, add to or limit the powers and duties of any officer.

6.10 **Term of Office** - The Board, in its discretion, may remove any officer of the Corporation, without prejudice to such officer's rights under any employment contract. Otherwise each officer appointed by the Board shall hold office until such officer's successor is appointed, or until such officer's earlier resignation.

6.11 **Terms of Employment and Remuneration** - The terms of employment and the remuneration of officers appointed by the Board shall be settled by it from time to time.

6.12 **Conflict of Interest** - An officer who:

6.12.1 is a party to; or

6.12.2 is an officer of, or has a material interest in, any person who is a party to;

a material contract or transaction or proposed material contract or transaction with the Corporation shall disclose the nature and extent of such officer's interest at the time and in the manner provided by the Act.

6.13 **Agents and Attorneys** - The Board shall have power from time to time to appoint agents or attorneys for the Corporation in or outside Canada with such powers of management or otherwise (including the power to sub-delegate) as may be thought fit.

6.14 **Fidelity Bonds** - The Board may require such officers, employees and agents of the Corporation as the Board deems advisable to furnish bonds for the faithful discharge of their powers and duties, in such form and with such surety as the Board may from time to time determine.

7. PROTECTION OF DIRECTORS, OFFICERS AND OTHERS

7.1 **Limitation of Liability** - No director or officer shall be liable for the acts, receipts, neglects or defaults of any other director or officer or employee, or for joining in any receipt or other act for conformity, or for any loss, damage or expense happening to the Corporation through the insufficiency or deficiency of title to any property acquired for or on behalf of the Corporation, or for the insufficiency or deficiency of any security in or on which any of the moneys of the Corporation shall be invested, or for any loss or damage arising from the bankruptcy, insolvency or tortious acts of any person with whom any of the moneys, securities or effects of the Corporation shall be deposited, or for any loss occasioned by any error of judgment or oversight on such individual's part, or for any other loss, damage or misfortune whatever which shall happen in the execution of the duties of such individual's office or in relation thereto; provided that nothing herein shall relieve any director or officer from the duty to act in accordance with the Act and the Regulations or from liability for any breach thereof.

7.2 **Indemnity** - Subject to the Act, the Corporation shall indemnify a director or officer of the Corporation, a former director or officer of the Corporation or another individual who acts or acted at the Corporation's request as a director or officer, or an individual acting in a similar capacity, of another entity, and such person's heirs and legal representatives, against all costs, charges and expenses, including an amount paid to settle an action or satisfy a judgment, reasonably incurred by the individual in respect of any civil, criminal, administrative, investigative or other proceeding in which the individual is involved because of that association with the Corporation or other entity, if:

7.2.1 the individual acted honestly and in good faith with a view to the best interests of the Corporation or, as the case may be, to the best interest of the other entity for which the individual acted as a director or officer or in a similar capacity at the Corporation's request; and

7.2.2 in the case of a criminal or administrative action or proceeding that is enforced by a monetary penalty, the person had reasonable grounds for believing that the individual's conduct was lawful.

7.3 **Insurance** - Subject to the Act, the Corporation may purchase and maintain such insurance for the benefit of its directors and officers as such, as the Board may from time to time determine.

8. SHARES

8.1 **Allotment** - Subject to the Act, the articles and any unanimous shareholder agreement, the Board may from time to time allot or grant options to purchase the whole or any part of the authorized and unissued shares of the Corporation at such times and to such persons and for such consideration as the Board shall determine, provided that no share shall be issued until it is fully paid as provided by the Act.

8.2 **Commissions** - The Board may from time to time authorize the Corporation to pay a reasonable commission to any person in consideration of such person purchasing or agreeing to purchase shares of the Corporation, whether from the Corporation or from any other person, or procuring or agreeing to procure purchasers for any such shares.

8.3 **Registration of Transfer** - Subject to the Act, no transfer of shares shall be registered in a securities register except on presentation of the certificate representing such shares with an endorsement which complies with the Act, together with such reasonable assurance or evidence of signature, identification and authority to transfer as the Board may from time to time prescribe, on payment of all applicable taxes and any fees prescribed by the Board, on compliance with such restrictions on transfer as are authorized by the articles and on satisfaction of any lien referred to in Section 8.5.

8.4 **Transfer Agents and Registrars** - The Board may from time to time appoint a registrar to maintain the securities register and a transfer agent to maintain the register of transfers and may also appoint one or more branch registrars to maintain branch securities registers and one or more branch transfer agents to maintain branch registers of transfers, but one person may be appointed both registrar and transfer agent. The Board may at any time terminate any such appointment.

8.5 **Lien for Indebtedness** - If the articles provide that the Corporation shall have a lien on shares registered in the name of a shareholder indebted to the Corporation, such lien may be enforced, subject to any other provision of the articles and to any unanimous shareholder agreement, by the sale of the shares thereby affected or by any other action, suit, remedy or proceeding authorized or permitted by law or by equity and, pending such enforcement, the Corporation may refuse to register a transfer of the whole or any part of such shares.

8.6 **Non-recognition of Trusts** - Subject to the Act, the Corporation may treat the person in whose name a share is registered in the securities register as the person exclusively entitled to vote, to receive notices, to receive any dividend or other payments in respect of the share and otherwise to exercise all the rights and powers of an owner.

8.7 **Security Certificates** - Every holder of one or more securities of the Corporation shall be entitled, at the security holder's option, to a security certificate, or to a non-transferable written acknowledgement of such security holder's right to obtain a security certificate, stating the number and class or series of securities held by such security holder as shown on the securities register. Security certificates and acknowledgements of a security holder's right to a security certificate, respectively, shall be in such form as the Board shall from time to time approve. Any security certificate shall be signed in accordance with Section 2.2 and need not be under the corporate seal; provided that, unless the Board otherwise determines, certificates representing securities in respect of which a transfer agent and/or registrar has been appointed shall not be valid unless countersigned by or on behalf of such transfer agent and/or registrar. The signature of one of the signing officers or, in the case of security certificates which are not valid unless countersigned by or on behalf of a transfer agent and/or registrar, the signatures of both signing officers, may be printed or mechanically reproduced in facsimile on security certificates and every such facsimile signature shall for all purposes be deemed to be the signature of the officer whose signature it reproduces and shall be binding on the Corporation. A security certificate executed as aforesaid shall be valid notwithstanding that one or both of the officers whose facsimile signature appears thereon no longer holds office at the date of issue of the certificate.

8.8 **Replacement of Security Certificates** - The Board or any officer or agent designated by the Board may in its or such person's discretion direct the issue of a new security certificate in lieu of and on cancellation of a security certificate that has been mutilated or in substitution for a security certificate claimed to have been lost, destroyed or wrongfully taken on payment of such fee, not exceeding the amount prescribed by the Regulations, and on such terms as to indemnity, reimbursement of expenses and evidence of loss and of title as the Board may from time to time prescribe, whether generally or in any particular case.

8.9 **Joint Security Holders** - If two or more persons are registered as joint holders of any security, the Corporation shall not be bound to issue more than one certificate in respect thereof, and delivery of such certificate to one of such persons shall be sufficient delivery to all of them. Any one of such persons may give effectual receipts for the certificate issued in respect thereof or for any dividend, bonus, return of capital or other money payable or warrant issuable in respect of such security.

8.10 **Deceased Security Holders** - In the event of the death of a holder, or of one of the joint holders, of any security, the Corporation shall not be required to make any entry in the securities register in respect thereof or to make payment of any dividends thereon except on production of all such documents as may be required by law and on compliance with the reasonable requirements of the Corporation and its transfer agents.

9. DIVIDENDS AND RIGHTS

9.1 **Dividends** - Subject to the Act, the Board may from time to time declare dividends payable to the shareholders according to their respective rights and interests in the Corporation. Dividends may be paid in money or property or by issuing fully paid shares of the Corporation.

9.2 **Dividend Cheques** - A dividend payable in money shall be paid by cheque drawn on the Corporation's bankers or one of them to the order of each registered holder of shares of the class or series in respect of which it has been declared and mailed by prepaid ordinary mail to such registered holder at such registered holder's recorded address, unless such holder otherwise directs. In the case of joint holders the cheque shall, unless such joint holders otherwise direct, be made payable to the order of all of such joint holders and mailed to them at their recorded address. The mailing of such cheque as aforesaid, unless the same is not paid on due presentation, shall satisfy and discharge the liability for the dividend to the extent of the sum represented thereby plus the amount of any tax which the Corporation is required to and does withhold.

9.3 **Non-receipt of Cheques** - In the event of non-receipt of any dividend cheque by the person to whom it is sent as aforesaid, the Corporation shall issue to such person a replacement cheque for a like amount on such terms as to indemnity, reimbursement of expenses and evidence of non-receipt and of title as the Board may from time to time prescribe, whether generally or in any particular case.

9.4 **Record Date for Dividends and Rights** - The Board may fix in advance a date, preceding by not more than 50 days, the date for the payment of any dividend or the date for the issue of any warrant or other evidence of the right to subscribe for securities of the Corporation, as a record date for the determination of the persons entitled to receive payment of such dividend or to exercise the right to subscribe for such securities, provided that notice of any such record date shall be given, not less than 7 days before such record date. Where no record date is fixed so, the record date for the determination of the persons entitled to receive payment of any dividend or to exercise the right to subscribe for securities of the Corporation shall be at the close of business on the day on which the resolution relating to such dividend or right to subscribe is passed by the Board.

9.5 **Unclaimed Dividends** - Any dividend unclaimed after the expiry of the applicable limitation period shall be forfeited and shall revert to the Corporation.

10. MEETINGS OF SHAREHOLDERS

10.1 **Annual Meetings** - The annual meeting of shareholders shall be held at such time in each year and, subject to Section 10.3, at such place as the Board, may from time to time determine, for the purpose of considering the financial statements and reports required by the Act to be placed before the annual meeting, electing directors, appointing auditors and for the transaction of such other business as may properly be brought before the meeting.

10.2 **Special Meetings** - The Board, the chairman of the Board or the chief executive officer shall have power to call a special meeting of shareholders at any time.

10.3 **Place of Meetings** - Subject to the articles and any unanimous shareholder agreement, meetings of shareholders shall be held at the registered office of the Corporation or, if the Board shall so determine, at some other place in Ontario or, at some place outside Ontario if all the shareholders entitled to vote at the meeting so agree. A meeting of shareholders held under Section 10.4 is deemed to be held at the place where the registered office is located.

10.4 **Participation by Electronic Means** - If the Corporation chooses to make available a telephonic or electronic facility that permits all participants to communicate adequately with each other during a meeting of shareholders, any shareholder entitled to attend such meeting may participate in the meeting by means of such telephonic or electronic communication facility. A shareholder, who through such means votes at the meeting or establishes a communications link to the meeting is deemed to be present at the meeting. Notwithstanding any other provision of this by-law, any person participating in a meeting of shareholders pursuant to this Section who is entitled to vote at that meeting may vote, in accordance with the Act and the Regulations, by means of any telephonic, electronic or other communication facility that the Corporation has made available for that purpose.

10.5 **Notice of Meetings** - Notice of the time and place of each meeting of shareholders shall be given in the manner provided in Section 11.1 not less than 10 nor more than 50 days before the date of the meeting, or within such other period as may be provided by the Act or prescribed by the Regulations to each director, to the auditor and to each shareholder who at the close of business on the record date for notice, is entered in the securities register as the holder of one or more shares carrying the right to vote at the meeting. Notice of a meeting of shareholders called for any purpose other than consideration of the financial statements and auditors report, election of directors and reappointment of the incumbent auditors shall state the nature of such business in sufficient detail to permit the shareholder to form a reasoned judgment thereon and shall state the text of any special resolution to be submitted to the meeting.

10.6 **List of Shareholders Entitled to Notice** - For every meeting of shareholders, the Corporation shall prepare within the time specified by the Act a list of shareholders entitled to receive notice of the meeting, arranged in alphabetical order and showing the number of shares held by each shareholder. If a record date for notice is fixed pursuant to Section 10.7, the shareholders listed shall be those registered at the close of business on such record date. If no record date for notice is so fixed, the shareholders listed shall be those registered (a) at the close of business on the day immediately preceding the day on which notice of the meeting is given, or (b) on the day on which the meeting is held where no such notice is given. The list shall be available for examination by any shareholder during usual business hours at the registered office of the Corporation or at the place where the central securities register is maintained and at the meeting for which the list was prepared.

10.7 **Record Date for Notice** The Board may fix in advance a date, preceding the date of any meeting of shareholders by not less than 21 days and not more than 50 days, as a record date for the determination of the shareholders entitled to notice of the meeting, and notice of any such record date shall be given not less than 7 days before such record date by newspaper advertisement and written notice in the manner provided by the Act. If no record date for notice is so fixed, the record date for the determination of the shareholders entitled to notice of the meeting shall be (a) at the close of business on the day immediately preceding the day on which notice of the meeting is given, or (b) on the day on which the meeting is held where no such notice is given.

10.8 **Meetings without Notice** - A meeting of shareholders may be held at any time and place permitted by the Act without notice or on shorter notice than that provided for herein, and proceedings thereat shall not be invalidated (a) if all the shareholders entitled to vote thereat are present in person or represented by proxy (other than as expressly to object that the meeting is not lawfully called) or if those not present in person or represented by proxy waive notice before or after the meeting or the time prescribed for the notice thereof, in writing of such meeting being held, and (b) if the auditors and the directors are present or if those not present, waive notice of or otherwise consent to such meeting being held. At such a meeting any business may be transacted which the Corporation at a meeting of shareholders may transact. If the meeting is held at a place outside Ontario, shareholders not present in person or represented by proxy, but who have waived notice of such meeting, shall also be deemed to have consented to the meeting being held at such place.

10.9 **Chairman, Secretary and Scrutineers** - The chairman of any meeting of shareholders shall be the first mentioned of such of the following officers as have been appointed and who is present at the meeting: chief executive officer, president, chairman of the Board, or a vice-president who is a director. If no such officer is present within 15 minutes from the time fixed for holding the meeting, the persons present and entitled to vote shall choose one of their number to be chairman. If the secretary of the Corporation is absent, the chairman shall appoint some person, who need not be a shareholder, to act as secretary of the meeting. If desired, one or more scrutineers, who need not be shareholders, may be appointed by a resolution or by the chairman with the consent of the meeting.

10.10 **Persons Entitled to be Present** - The only persons entitled to attend a meeting of shareholders shall be those entitled to vote thereat, the directors and auditor of the Corporation and others who, although not entitled to vote, are entitled or required under the Act or the articles or by-laws to be present at the meeting. Any other person may be admitted only on the invitation of the chairman of the meeting or with the consent of the meeting.

10.11 **Quorum** - Subject to the Act, a quorum for the transaction of business at any meeting of shareholders shall be one person present in person, being a shareholder entitled to vote thereat or a duly appointed representative or proxyholder for an absent shareholder so entitled, and holding or representing in the aggregate not less than twenty percent (20%) of the outstanding shares of the Corporation entitled to vote at the meeting. If a quorum is present at the opening of any meeting of shareholders, the shareholders present in person or represented by proxy may proceed with the business of the meeting notwithstanding that a quorum is not present throughout the meeting. If a quorum is not present at the opening of any meeting of shareholders, the shareholders present in person or represented by proxy may adjourn the meeting to a fixed time and place, but may not transact any other business.

10.12 **Right to Vote** - Subject to the Act as to authorized representatives of any other body corporate or association, at any meeting of shareholders for which the Corporation must prepare a list referred to in Section 10.6, every person who is named in such list shall be entitled to vote the shares shown opposite such person's name.

10.13 **Proxies** - Every shareholder entitled to vote at a meeting of shareholders may appoint a proxyholder, or one or more alternate proxyholders, who need not be shareholders, to attend and act at the meeting in the manner and to the extent authorized and with the authority conferred by the proxy. A proxy shall be in writing executed by the shareholder or such shareholder's attorney and shall conform with the Act. Every such shareholder which is a body corporate or association may by resolution of its directors or governing body authorize an individual who need not be a shareholder to represent it at a meeting of shareholders and such individual may exercise on the shareholder's behalf all the powers it could exercise if it were an individual shareholder. The authority of such an individual shall be established by depositing with the Corporation a certified copy of such resolution, or in such other manner as may be satisfactory to the secretary of the Corporation or the chairman of the meeting.

10.14 **Time for Deposit of Proxies** - The Board may specify in a notice calling a meeting of shareholders a time, preceding the time of such meeting by not more than 48 hours exclusive of non-business days, before which time proxies to be used at such meeting must be deposited. A proxy shall be acted on only if, prior to the time so specified, it shall have been deposited with the Corporation or an agent thereof specified in such notice or, if no such time is specified in such notice, unless it has been received by the secretary of the Corporation or by the chairman of the meeting or any adjournment thereof prior to the time of voting.

10.15 **Joint Shareholders** - If two or more persons hold shares jointly, one of them present in person or represented by proxy at a meeting of shareholders may, in the absence of the other or others, vote the shares; but if two or more of those persons are present in person or represented by proxy and vote, they shall vote as one on the shares jointly held by them.

10.16 **Votes to Govern** - At any meeting of shareholders every question shall, unless otherwise required by the articles or by-laws or by law, be determined by a majority of the votes cast on the question. In case of an equality of votes either on a show of hands or on a ballot or on results of electronic voting, the chairman of the meeting shall not be entitled to a second or casting vote.

10.17 **Show of Hands** - Subject to the Act, any question at a meeting of shareholders shall be decided by a show of hands unless a ballot thereon is required or demanded as hereinafter provided. On a show of hands every person who is present and entitled to vote shall have one vote. Whenever a vote by show of hands shall have been taken on a question, unless a ballot thereon is so required or demanded, a declaration by the chairman of the meeting that the vote on the question has been carried or carried by a particular majority or not carried and an entry to that effect in the minutes of the meeting shall be *prima facie* evidence of the fact without proof of the number or proportion of the votes recorded in favour of or against any resolution or other proceeding in respect of the question, and the result of the vote so taken shall be the decision of the shareholders on the question.

10.18 **Ballots** - On any question proposed for consideration at a meeting of shareholders, and whether or not a show of hands has been taken thereon, the chairman may require a ballot of any person present or any shareholder or proxyholder entitled to vote on such question at the meeting may demand a ballot. A ballot so demanded shall be taken in such manner as the chairman shall direct. A demand for a ballot may be withdrawn at any time prior to the taking of the ballot. If a ballot is taken each person present shall be entitled, in respect of the shares which such person is entitled to vote at the meeting on the question, to that number of votes provided by the Act or the articles, and the result of the ballot so taken shall be the decision of the shareholders on the question.

10.19 **Adjournment** - If a meeting of shareholders is adjourned by one or more adjournments for an aggregate of less than 30 days it is not necessary to give notice of the adjourned meeting other than by announcement at the time of an adjournment. If a meeting of shareholders is adjourned by one or more adjournments for an aggregate of 30 days or more but not more than 90 days, notice of the adjourned meeting shall be given as for an original meeting but the management of the Corporation shall not be required to send a form of proxy in the form provided by the Act to each shareholder who is entitled to receive notice of the meeting.

10.20 **Resolution in Writing** - A resolution in writing signed by all the shareholders entitled to vote on that resolution at a meeting of shareholders is as valid as if it had been passed at a meeting of the shareholders unless a written statement with respect to the subject matter of the resolution is submitted by a director or the auditors in accordance with the Act.

10.21 **Only One Shareholder** - Where the Corporation has only one shareholder or only one holder of any class or series of shares, the shareholder present in person or by proxy constitutes a meeting.

11. NOTICES

11.1 **Method of Giving Notices** - Any notice (which term includes any communication or document) to be given (which term includes sent, delivered or served) pursuant to the Act, the Regulations, the articles, the by-laws or otherwise to a shareholder, director, officer or member of a committee of the Board or to the auditors shall be sufficiently given if delivered personally to the person to whom it is to be given or if delivered to such person's recorded address or if mailed to such person at such person's recorded address by prepaid ordinary or air mail or if sent to such person at such person's recorded address by facsimile or if provided to such person by electronic means in accordance with the *Electronic Commerce Act, 2002* (Ontario). A notice so delivered shall be deemed to have been given when it is delivered personally or to the recorded address as aforesaid; a notice so mailed shall be deemed to have been received by the addressee on the fifth day after mailing; and a notice so provided by electronic means (including by facsimile) shall be deemed to have been sent and received in the manner and at the time specified in the *Electronic Commerce Act, 2002* (Ontario). The secretary may change or cause to be changed the recorded address of any shareholder, director, officer, auditor or member of a committee of the Board in accordance with any information believed by the secretary to be reliable.

11.2 **Notice to Joint Shareholders** - If two or more persons are registered as joint holders of any share, any notice shall be addressed to all of such joint holders but notice to one of such persons shall be sufficient notice to all of them.

11.3 **Computation of Time** - In computing the date when notice must be given under any provision requiring a specified number of days notice of any meeting or other event, the date of giving the notice shall be excluded and the date of the meeting or other event shall be included.

11.4 **Undelivered Notices** - If any notice given to a shareholder pursuant to Section 11.1 is returned on two consecutive occasions because such shareholder cannot be found, the Corporation shall not be required to give any further notices to such shareholder until such shareholder informs the Corporation in writing of such shareholder's new address.

11.5 **Omissions and Errors** - The accidental omission to give any notice to any shareholder, director, officer, auditor or member of a committee of the Board or the non-receipt of any notice by any such person or any error in any notice not affecting the substance thereof shall not invalidate any action taken at any meeting held pursuant to such notice or otherwise founded thereon.

11.6 **Persons Entitled by Death or Operation of Law** - Every person who, by operation of law, transfer, death of a shareholder or any other means whatsoever, shall become entitled to any share, shall be bound by every notice in respect of such share which shall have been duly given to the shareholder from whom such person derives title to such share prior to such person's name and address being entered on the securities register (whether such notice was given before or after the happening of the event on which such person became so entitled) and prior to such person furnishing to the Corporation the proof of authority or evidence of entitlement provided by the Act.

11.7 **Waiver of Notice** - Any shareholder, (or such shareholder's duly appointed proxyholder), director, officer, auditors or member of a committee of the Board may at any time waive any notice, or waive or abridge the time for any notice, required to be given to such person under the Act, the Regulations, the articles, the by-laws or otherwise and such waiver or abridgement, whether given before or after the meeting or other event of which notice is required to be given, shall cure any default in the giving or in the time of such notice, as the case may be. Any such waiver or abridgement shall be in writing or by electronic means in accordance with the *Electronic Commerce Act, 2002* (Ontario) except a waiver of notice of a meeting of shareholders or of the Board or of a committee of the Board which may be given in any manner.

12. EFFECTIVE DATE

12.1 **Effective Date** - This amended and restated by-law shall be effective on and from June 9, 2015 when it was made by the Board.

12.2 **Confirmation of Shareholders** – This amended and restated by-law was confirmed at a special meeting of shareholders of the Corporation held on June 9, 2015.

(Signed) "John Hargrove"

John Hargrove
Chairman

(Signed) "Stephen Randall"

Stephen Randall
Secretary

TITAN MEDICAL INC.
INCORPORATED UNDER THE ONTARIO BUSINESS CORPORATIONS ACT

Number
00000000

Shares
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THIS CERTIFIES THAT

CUSIP 88830X819

ISIN CA88830X8199

SEE REVERSE FOR CDP FIRM IDENTIFIERS

IS THE REGISTERED HOLDER OF

FULLY PAID AND NON-ASSESSABLE COMMON SHARES WITHOUT PAR VALUE IN THE CAPITAL OF
TITAN MEDICAL INC.

transferable on the books of the Corporation only upon surrender of this certificate properly endorsed.
This certificate is not valid unless countersigned by the Transfer Agent and Registrar of the Corporation.
IN WITNESS WHEREOF the Corporation has caused this certificate to be signed on its behalf by the facsimile signatures of its duly authorized officers.

Stephen Landell
Chief Financial Officer

Richard J. Kelly
President and Chief Executive Officer

or

Date: Jun 14 2016

COUNTERSIGNED AND REGISTERED
COMPUTERSHARE TRUST COMPANY, N.A.
(CANON, MA, JERSEY CITY, NJ AND
LOUISVILLE, KY)

OR

COUNTERSIGNED AND REGISTERED
COMPUTERSHARE TRUST COMPANY OF CANADA
(TD BOMT)

By _____
Authorized Officer

or

By _____
Authorized Officer

The shares represented by this certificate are transferable at the office of Computershare Trust Company of Canada in Toronto, Ontario or the office of Computershare Trust Company, N.A. in Canon, MA, Jersey City, NJ and Louisville, KY.

SECURITY INSTRUCTIONS ON REVERSE VOIR LES INSTRUCTIONS DE SÉCURITÉ AU VERSO

COMP-INTL-2011-0519-001-00000000000000000000000000000000

The following abbreviations shall be construed as though the words set forth below opposite each abbreviation were written out in full where such abbreviation appears:

TEN COM	- as tenants in common	(Name) CUST (Name) UNIF	- (Name) as Custodian for (Name) under the
TEN ENT	- as tenants by the entirety	GIFT MIN ACT (State)	(State) Uniform Gifts to Minors Act
JT TEN	- as joint tenants with rights of survivorship and not as tenants in common		

Additional abbreviations may also be used though not in the above list.

For value received the undersigned hereby sells, assigns and transfers unto

Insert name and address of transferee

_____ shares

represented by this certificate and does hereby irrevocably constitute and appoint

_____ the attorney

of the undersigned to transfer the said shares on the books of the Corporation with full power of substitution in the premises.

DATED: _____

Signature of Shareholder

Signature of Guarantor

Signature Guarantee:

The signature on this assignment must correspond with the name as written upon the face of the certificate(s) in every particular, without alteration or enlargement, or any change whatsoever and must be guaranteed by a major Canadian Schedule I chartered bank or a member of an acceptable Medallion Signature Guarantee Program (STAMP, SEMP, MSP). The Guarantor must affix a stamp bearing the actual words "Signature Guaranteed".

In the USA, signature guarantees must be done by members of a "Medallion Signature Guarantee Program" only.

Signature guarantees are not accepted from Treasury Branches, Credit Unions or Caisses Populaires unless they are members of the Stamp Medallion Program.

Until the earlier of the Separation Time or the Expiration Time (as such terms are defined in the Rights Agreement referred to below), this certificate also evidences and entitles the holder hereof to certain Rights as set forth in a Rights Agreement dated as of May 8, 2015 (the "Rights Agreement"), between Titan Medical Inc. (the "Corporation") and Computershare Trust Company of Canada, as Rights Agent, the terms of which are hereby incorporated herein by reference and a copy of which is on file and may be inspected during normal business hours at the principal executive offices of the Corporation. Under certain circumstances, as set forth in the Rights Agreement, such Rights may be amended or redeemed, may expire, may become void, or may be evidenced by separate certificates and may no longer be evidenced by this certificate. The Corporation will mail or arrange for the mailing of a copy of the Rights Agreement to the holder of this certificate without charge within five days after the receipt of a written request therefor.

SECURITY INSTRUCTIONS - INSTRUCTIONS DE SÉCURITÉ

THIS IS WATERMARKED PAPER, DO NOT ACCEPT WITHOUT NOTING WATERMARK. HOLD TO LIGHT TO VERIFY WATERMARK.
PAPIER FILIGRANÉ, NE PAS ACCEPTER SANS VÉRIFIER LA PRÉSENCE DU FILIGRANE. POUR CE FAIRE, PLACER À LA LUMIÈRE.



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July 30, 2019

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

Dear Sirs/Mesdames:

Re: Titan Medical Inc. – Registration Statement on Form F-3

We have acted as Ontario counsel to Titan Medical Inc. (the “**Corporation**”) in connection with the preparation of a Registration Statement on Form F-3 (the “**Registration Statement**”) under the United States Securities Act of 1933, as amended (the “**Act**”), relating to the potential issuance and sale by the Corporation of (i) up to an aggregate of US\$125 million of securities of the Corporation (collectively, the “**Securities**”) pursuant to one or more prospectus supplements (each a “**Prospectus Supplement**”) to the Registration Statement to be filed by the Corporation from time to time.

The Securities of the Corporation which may be offered under the Registration Statement include the following:

- common shares (“**Shares**”),
- warrants to purchase Shares (the “**Warrants**”) which may be issued under a warrant indenture to be entered into with a warrant agent to be selected by the Corporation, or
- units comprised of a combination of Shares and whole or partial Warrants (“**Units**”),

We have examined originals or copies, certified or otherwise to our satisfaction of such documents and considered such questions of law as we considered necessary as a basis for our opinion, including the Registration Statement and resolutions of the board of directors of the Corporation approving the filing of the Registration Statement and the issuance of the Securities. In all such examinations, we have assumed (i) the genuineness of all signatures, the legal capacity of all individuals signing any documents, the authenticity of all documents submitted to us as originals, the conformity to authentic original documents of all documents submitted to us as copies, whether facsimile, photostatic, electronic, certified or otherwise, and (ii) the truthfulness of all facts set forth in the public records and in certificates of public officials.

We have also assumed that in connection with any Securities issued under the Registration Statement, (i) all required filings relating to, and any approvals for, the Registration Statement, any Prospectus Supplement or any related document, has been made and received prior to the issuance of any such Securities, (ii) any applicable agreement, including any warrant indenture, underwriting agreement or similar document (collectively “**Applicable Agreements**”), has been, or will be prior to the time of the issuance of the applicable Security, duly authorized, executed and delivered by the Corporation and any other party thereto and is enforceable against each such party thereto, and neither the execution and delivery of any such document by any party thereto nor the performance by any party of its obligations thereunder do, or will, violate or conflict with any applicable laws or the constating documents of such party or an requirement or restriction imposed by an court or government body having jurisdiction over such party. We have assumed that any Applicable Agreement entered into will be governed by the laws of the Province of Ontario.

Our opinion herein is limited to the laws of the Province of Ontario and the federal laws of Canada applicable therein now in effect (the “**Applicable Law**”).

Based on and subject to the foregoing assumptions and qualifications we are of the opinion that:

1. With respect to the issuance of any Shares, including without limitation Shares issuable upon conversion or exercise of any other Securities that are convertible or exercisable into Shares, which may be offered pursuant to the Registration Statement, when (a) the issuance and sale of the Shares has been duly authorized by all necessary corporate action in conformity with the constating documents (as then in effect), and the *Business Corporations Act* (Ontario) (the “**OBCA**”) (as then in effect), and does not violate any Applicable Law or result in a default under or breach of any agreement or instrument binding upon the Corporation and comply with any requirement or restriction imposed by any court or governmental body of Canada or Ontario having jurisdiction over the Corporation; (b) the full consideration, determined to be adequate by the Corporation’s board of directors (or a duly authorized committee thereto), which is at least equal to the issue price of the Shares, has been received by the Corporation; and (c) if certificated, the certificates representing the Shares have been duly executed and delivered by the proper officers of the Corporation to the purchasers thereof against payment of the agreed-upon consideration therefor in the manner contemplated in the Registration Statement or any Prospectus Supplement relating thereto, the Shares will be validly issued, fully paid, and non-assessable.
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2. With respect to any Warrants which may be offered pursuant to the Registration Statement, when (a) the terms, issuance, and sale of, and performance under the Warrants, the underlying Shares, and the Applicable Agreement relating to the Warrants have been duly authorized by all necessary corporate action, including the authorization of the issuance and reservation (if appropriate) of the Shares to be issued pursuant to the Warrants, in conformity with the constating documents (as then in effect), and the OBCA (as then in effect), and do not violate any Applicable Law or result in a default under or breach of any agreement or instrument binding upon the Corporation and comply with any requirement or restriction imposed by any court or governmental body of Canada or Ontario having jurisdiction over the Corporation; (b) the full consideration, determined to be adequate by the Corporation's board of directors (or a duly authorized committee thereto), for the Warrants has been received by the Corporation; (c) the Warrants have been duly executed, countersigned, issued, and delivered in accordance with the Applicable Agreement relating to the Warrants to the purchasers thereof against payment of the agreed-upon consideration therefor in the manner contemplated in the Registration Statement or any Prospectus Supplement relating thereto; and (d) the Applicable Agreement relating to the Warrants and the underlying Shares have been duly authorized, executed, and delivered and the Applicable Agreement relating to the Warrants has been duly authorized by the Corporation's board of directors (or a duly authorized committee thereto), such Warrants will be validly issued, fully paid and non-assessable Securities of the Corporation, and the Warrants along with the Applicable Agreement relating to the Warrants will be a valid and binding obligation of the Corporation; enforceable against the Corporation in accordance with its terms, except to the extent that enforcement thereof may be limited by (i) bankruptcy, insolvency, reorganization, fraudulent conveyance, moratorium, or other similar laws now or hereafter in effect relating to creditors' rights generally, (ii) general principles of equity (regardless of whether enforceability is considered in a proceeding at law or in equity), and (iii) public policy considerations which may limit the rights of the parties to obtain further remedies.
3. With respect to any Units which may be offered pursuant to the Registration Statement, when (a) the terms, issuance and sale of, and performance under the Units, the Securities underlying the Units and the Applicable Agreement relating to the Units have been duly authorized by all necessary corporate action, including the authorization of the issuance and reservation (if appropriate) of the Shares or Warrants to be issued pursuant to the Units, in conformity with the constating documents (as then in effect), and the OBCA (as then in effect), and do not violate any Applicable Law or result in a default under or breach of any agreement or instrument binding upon the Corporation and comply with any requirement or restriction imposed by any court or governmental body of Canada or Ontario having jurisdiction over the Corporation; (b) the full consideration, determined to be adequate by the Corporation's board of directors (or a duly authorized committee thereto), for the Units has been received by the Corporation; (c) the Units have been duly executed, countersigned, issued, and delivered in accordance with the Applicable Agreement relating to the Units to the purchasers thereof against payment of the agreed-upon consideration therefor in the manner contemplated in the Registration Statement or any Prospectus Supplement relating thereto; (d) the Applicable Agreement relating to the Units and the underlying Securities have been duly authorized, executed, and delivered and the Applicable Agreement relating to the Units has been duly authorized by the Corporation's board of directors (or a duly authorized committee thereto), such Units will be validly issued, fully paid and non-assessable Securities of the Corporation, and the Applicable Agreement relating to the Units will be a valid and binding obligation of the Corporation; enforceable against the Corporation in accordance with its terms, except to the extent that enforcement thereof may be limited by (i) bankruptcy, insolvency, reorganization, fraudulent conveyance, moratorium, or other similar laws now or hereafter in effect relating to creditors' rights generally, (ii) general principles of equity (regardless of whether enforceability is considered in a proceeding at law or in equity), and (iii) public policy considerations which may limit the rights of the parties to obtain further remedies.

We hereby consent to the use of our name in, and the filing of this opinion as an exhibit to, the Registration Statement. In giving this consent, we do not thereby admit that we are in the category of persons whose consent is required under the Securities Act or the rules and regulations promulgated thereunder. This opinion is expressed as of the date hereof unless otherwise expressly stated, and we disclaim any undertaking to advise you of any subsequent changes of the facts stated or assumed herein or any subsequent changes in Applicable Law.

Yours truly,

/s/ Borden Ladner Gervais LLP



Tel: 416 865 0200
Fax: 416 865 0887
www.bdo.ca

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

Titan Medical Inc. Toronto, Canada

We hereby consent to the incorporation by reference in this Registration Statement on Form F-3 (the "F-3") 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 our report dated February 13, 2018, on the financial statements of the Company for the year ended December 31, 2017, both of which appear in the Company's Annual Report on Form 40-F for the year ended December 31, 2018. Our report dated February 13, 2019 contains an explanatory paragraph regarding the Company's ability to continue as a going concern.

We also consent to the reference to us under the heading "Experts" in the F-3.

BDO Canada LLP

BDO Canada LLP
Toronto, Canada

July 30, 2019