

AGENCY AGREEMENT

September 13, 2016

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

Attention: John T. Hargrove, Chief Executive Officer

Dear Sir:

Bloom Burton & Co. Limited and Echelon Wealth Partners Inc. (collectively, the “**Agents**”, and each an “**Agent**”) understand that Titan Medical Inc. (the “**Corporation**”) proposes to issue and sell a minimum of 17,083,333 units of the Corporation (the “**Offered Units**”) and up to a maximum of 26,791,667 Offered Units at a price of \$0.60 per Offered Unit (the “**Offering Price**”) for aggregate gross proceeds of a minimum of \$10,250,000 (the “**Minimum Offering**”) and a maximum of \$16,075,000. Each Offered Unit shall consist of one common share in the capital of the Corporation (a “**Unit Share**”) and one common share purchase warrant (each, a “**Warrant**”). Each Warrant shall be issued on the terms and conditions set out in the Warrant Indenture (as hereinafter defined) and shall entitle the holder thereof to purchase one Common Share (as hereinafter defined) (a “**Warrant Share**”) at an exercise price of \$0.75 per Warrant Share on or before 5:00 p.m. (Toronto time) on the date that is 60 months following the Closing Date (as hereinafter defined).

In addition, the Corporation hereby grants to the Agents an option (the “**Agents’ Option**”) exercisable in whole or in part and at any time and from time to time on or before the Closing Date or for a period of 30 days following the Closing Date, to arrange for the purchase from the Corporation, on a best efforts basis and subject to the terms and conditions set out herein, of up to that number of additional units of the Corporation with the same terms as the Offered Units (the “**Additional Offered Units**”) and/or common share purchase warrants of the Corporation with the same terms as the Warrants (the “**Additional Warrants**”) equal to 15% of the Offered Units issued on the Closing Date to cover the Agent’s “over-allocation position” (as that term is defined in NI 41-101 (as hereinafter defined)), if any, and for market stabilization purposes. The Agents’ Option will be exercisable to arrange for the purchase of (i) Additional Offered Units at the Offering Price, (ii) Additional Warrants at a price of \$0.05 per Additional Warrant, or (iii) a combination thereof, so long as the aggregate number of Additional Units and Additional Warrants does not exceed 15% of the number of Offered Units issued on the Closing Date. Unless otherwise specifically referenced or unless the context otherwise requires, all references to “**Offered Units**” herein shall include the Additional Offered Units and all references to “**Warrants**” herein shall include the Additional Warrants. If the Agents elect to exercise the Agents’ Option, the Agents shall notify the Corporation in writing not later than 30 days after the Closing Date, which notice shall specify the number of Additional Offered Units and/or Additional Warrants to be sold under the Offering (as hereinafter defined) pursuant to the exercise of the Agents’ Option and the date upon which such Additional Offered Units and/or Additional Warrants are to be purchased (the “**Agents’ Option Closing Date**”). Such date may be the same as the Closing Date but otherwise not earlier than two Business Days after the date of such notice. The offering of the Offered Units (including for greater certainty any Additional Offered Units and/or Additional Warrants issued in connection with the exercise of the Agents’ Option) by the Corporation is hereinafter referred to as the “**Offering**”.

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

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

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

The obligation of the Corporation to pay the Agency Fee and to issue the Compensation Warrants shall arise at the Closing Time (as hereinafter defined) against payment for the Offered Units (and, for greater certainty, with respect to the sale of any Additional Offered Units and/or Additional Warrants on the exercise of the Agents’ Option, at the Agents’ Option Closing Time against payment for the Additional Offered Units and/or Additional Warrants, except the obligation of the Corporation to issue Compensation Warrants in connection with the exercise of the Agents’ Option shall only arise in respect of the sale of Additional Offered Units), and the Agency Fee and the Compensation Warrants shall be fully earned by the Agents at such time.

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

of the Offered Securities in the United States or to, or for the account or benefit of, persons in the United States or U.S. Persons (as defined herein).

DEFINITIONS

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

“**Additional Offered Units**” has the meaning ascribed thereto in the second paragraph of this Agreement;

“**Additional Warrants**” has the meaning ascribed thereto in the second paragraph of this Agreement;

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

“**Agency Fee**” has the meaning ascribed thereto in the fifth paragraph of this Agreement;

“**Agents**” has the meaning ascribed thereto in the first paragraph of this Agreement;

“**Agents’ Option**” has the meaning ascribed thereto in the second paragraph of this Agreement;

“**Agents’ Option Closing Date**” has the meaning ascribed thereto in the second paragraph of this Agreement;

“**Agents’ Option Closing Time**” means 8:00 a.m. (Toronto time) on the Agents’ Option Closing Date or such other time on the Agents’ Option Closing Date as the Corporation and the Agents may agree;

“**Agreement**” means the agreement resulting from the acceptance by the Corporation of the offer made hereby;

“**Applicable IP Laws**” means, with respect to a specific Intellectual Property, all applicable federal, provincial, state and local laws and regulations applicable to that Intellectual Property in the countries where rights in such Intellectual Property arise, the countries including Canada, the United States, the European Union and the jurisdictions in which the Corporation has registered Intellectual Property;

“**Applicable Laws**” means all applicable federal, provincial, state and local laws and regulations of authorities having jurisdiction over the Corporation or the Agents, as applicable;

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

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

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

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

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

“**Canadian Selling Jurisdictions**” has the meaning ascribed thereto in the seventh paragraph of this Agreement;

“**CDS**” has the meaning ascribed thereto in Section 8;

“**CIPO**” means the Canadian Intellectual Property Office;

“**Claims**” has the meaning ascribed thereto in Section 12;

“**Closing**” means the completion of the issue and sale by the Corporation of the Offered Units;

“**Closing Date**” means September 20, 2016, or such other date as the Agents and the Corporation may agree;

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

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

“**comparables**” has the meaning ascribed thereto in NI 41-101;

“**Compensation Warrants**” has the meaning ascribed thereto in the fifth paragraph of this Agreement;

“**Compensation Warrant Certificates**” means the certificates representing the Compensation Warrants;

“**Corporation**” has the meaning ascribed thereto in the first paragraph of this Agreement;

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

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

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

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

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

“**Due Diligence Session**” has the meaning ascribed thereto in subsection 6(a);

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

“**Engagement Letter**” means the letter agreement dated July 29, 2016 between the Corporation and Bloom Burton & Co. Limited relating to the Offering;

“**Environmental Laws**” has the meaning ascribed thereto in subsection 7(ii);

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

“**Financial Statements**” means the Audited Financial Statements and the Interim Financial Statements;

“**Indemnified Party**” has the meaning ascribed thereto in Section 12;

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

“**Interim Financial Statements**” means the unaudited interim financial statements of the Corporation as at and for the three month and six period ended June 30, 2016;

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

“**Leased Premises**” has the meaning ascribed thereto in subsection 7(II);

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

“**marketing materials**” has the meaning ascribed thereto in NI 41-101;

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

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

“**Material Permits**” has the meaning ascribed thereto in subsection 7(qq);

“**Minimum Offering**” has the meaning ascribed thereto in Section 1;

“**NI 41-101**” means National Instrument 41-101 – *General Prospectus Requirements*;

“**NI 44-101**” means National Instrument 44-101 – *Short Form Prospectus Distributions*;

“**NI 51-102**” means National Instrument 51-102 – *Continuous Disclosure Obligations*;

“**Notice**” has the meaning ascribed thereto in Section 17;

“**Offered Units**” has the meaning ascribed thereto in the first paragraph of this Agreement;

“**Offering**” has the meaning ascribed thereto in the second paragraph of this Agreement;

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

“**Offering Price**” has the meaning ascribed thereto in the first paragraph of this Agreement;

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

“**President’s List Subscribers**” has the meaning ascribed thereto in the fourth paragraph of this Agreement;

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

“**Prospectus Amendment**” means any amendment or supplement to the Prospectus;

“**Prospectus Supplement**” means the prospectus supplement to be dated on or about September 13, 2016, including all Documents Incorporated by Reference therein;

“**Purchasers**” means any persons who acquire Offered Units and/or Additional Warrants at the Closing Time or the Agents’ Option Closing Time, as applicable;

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

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

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

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

“**Selling Firm**” has the meaning ascribed thereto in the third paragraph of this Agreement;

“**Selling Jurisdictions**” has the meaning ascribed thereto in the seventh paragraph of this Agreement;

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

“**standard term sheet**” has the meaning ascribed thereto in NI 41-101;

“**Taxes**” has the meaning ascribed thereto in subsection 7(j);

“**template version**” has the meaning ascribed thereto in NI 41-101;

“**Transfer Agent**” means Computershare Investor Services Inc.;

“**TSX**” means the Toronto Stock Exchange;

“**TSX Letter**” has the meaning ascribed thereto in subsection 4(a)(iv);

“**TSX Manual**” means the TSX Company Manual;

“**Unit Shares**” has the meaning ascribed thereto in the first paragraph of this Agreement;

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

“**USPTO**” means the United States Patent and Trademark Office;

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

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

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

“**U.S. Securities Act**” means the U.S. Securities Act of 1933, as amended;

“**U.S. Selling Group Member**” has the meaning ascribed thereto in the seventh paragraph of this Agreement;

“**Warrant Indenture**” means the warrant indenture between the Corporation and Computershare Trust Company of Canada, in its capacity as warrant agent, governing the Warrants;

“**Warrant Shares**” has the meaning ascribed thereto in the first paragraph of this Agreement; and

“**Warrants**” has the meaning ascribed thereto in the first paragraph of this Agreement.

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

Schedule “A”	-	Options, Warrants and Convertible Securities
Schedule “B”	-	Compliance with United States Securities Laws
Schedule “C”	-	Corporation IP
Schedule “D”	-	Licensor Contracts
Schedule “E”	-	Licensing Agreements

TERMS AND CONDITIONS

1. Nature of the Transaction

Based upon the foregoing and subject to the terms and conditions set out below, the Corporation hereby appoints the Agents to act as its exclusive agents, and the Agents hereby accept such appointment, to effect the sale of the Offered Units for an aggregate purchase price of a minimum of \$10,250,000 and up to a maximum of \$16,075,000, on a best efforts basis to persons resident in the Selling Jurisdictions. The

Agents agree to use their best efforts to sell the Offered Units, but it is hereby understood and agreed that the Agents shall act as agents only and are under no obligation to purchase any of the Offered Units and/or Additional Warrants, although the Agents may subscribe for the Offered Units and/or Additional Warrants if they so desire. The Offering will be subject to subscriptions being received for the Minimum Offering. All funds received by the Agents will be held in trust until the Minimum Offering has been attained. Notwithstanding any other term of this Agreement, all subscription funds received by the Agents will be returned to the Purchasers if the Minimum Offering is not attained by the Closing Time.

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

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

- (a) not to provide any potential investor of Offered Units and/or Additional Warrants with any marketing materials unless a template version of such marketing materials has been filed by the Corporation with the Canadian Securities Regulators on or before the day such marketing materials are first provided to any potential investor of Offered Units and/or Additional Warrants;
- (b) not to provide any potential investor with any materials or information in relation to the distribution of the Offered Units and/or Additional Warrants or the Corporation other than: (A) such marketing materials that have been approved and filed in accordance with this Section 1; (B) the Prospectus and any Prospectus Amendments; and (C) any standard term sheets approved in writing by the Corporation and the Agents; and
- (c) that any marketing materials approved and filed in accordance with this Section 1 and any standard term sheets approved in writing by the Corporation and the Agents shall only be provided to potential investors in the Selling Jurisdictions where the provision of such marketing materials or standard term sheets does not contravene Applicable Securities Laws.

2. Prospectus Supplement

The Corporation shall use commercially reasonable best efforts to file a Prospectus Supplement in each of the Canadian Selling Jurisdictions not later than 10:45 p.m. (Toronto time) on September 13, 2016.

Until the date on which the Distribution of the Offered Units and/or Additional Warrants is completed, the Corporation will promptly take, or cause to be taken, all additional steps and proceedings that may

from time to time be required or desirable under Applicable Securities Laws of the Canadian Selling Jurisdictions to continue to qualify the Distribution of the Offered Units and/or Additional Warrants and the Compensation Warrants, or, in the event that the Offered Units and/or Additional Warrants and the Compensation Warrants have, for any reason, ceased to so qualify, to so qualify again the Offered Units and/or Additional Warrants and the Compensation Warrants for Distribution in the Canadian Selling Jurisdictions.

3. Covenants and Representations of the Agents

- (a) Each Agent has complied and will comply, and shall require any other Selling Firm with which the Agent has a contractual relationship in respect of the Distribution of the Offered Units and/or Additional Warrants (including, for the avoidance of doubt, the U.S. Selling Group Member) to comply, with Applicable Securities Laws in connection with the Distribution of the Offered Units and/or Additional Warrants including the U.S. selling restrictions imposed by the laws of the United States and set forth in Schedule “B” to this Agreement, shall ensure that each Selling Firm agrees to comply with the covenants and obligations given by the Agents herein, to the extent applicable, and shall offer the Offered Units and/or Additional Warrants for sale to the public in the Selling Jurisdictions directly and through Selling Firms upon the terms and conditions set out in the Prospectus and this Agreement. The Agents agree to obtain such an agreement of each Selling Firm. Each Agent has offered and will offer, and shall require any Selling Firm to offer, for sale to the public and sell the Offered Units and/or Additional Warrants only in those jurisdictions where they may be lawfully offered for sale or sold.
- (b) Each Agent shall, and shall require any Selling Firm to agree to, distribute the Offered Units and/or Additional Warrants in a manner which complies with and observes all Applicable Laws in each jurisdiction into and from which they may offer to sell Offered Units and/or Additional Warrants or distribute the Prospectus or any Prospectus Amendment in connection with the Distribution of the Offered Units and/or Additional Warrants and will not, directly or indirectly, offer, sell or deliver any Offered Units and/or Additional Warrants or deliver the Prospectus or any Prospectus Amendment to any person in any jurisdiction other than in the Canadian Selling Jurisdictions except in a manner which will not require the Corporation to comply with the registration, prospectus, filing or other similar requirements under the Applicable Laws relating to securities of such other jurisdictions.
- (c) Each Agent shall use all reasonable efforts to complete the Distribution of the Offered Units and/or Additional Warrants pursuant to the Prospectus as early as practicable and the Agents shall advise the Corporation in writing when, in the opinion of the Agents, the Agents have completed the Distribution of the Offered Units and/or Additional Warrants and within 25 days of the Closing Date provide a breakdown of the number of Offered Units and/or Additional Warrants distributed and proceeds received in each of the Canadian Selling Jurisdictions where such breakdown is required for the purpose of calculating fees payable to the Canadian Securities Regulators.
- (d) The Agents shall deliver a copy of the Prospectus and any Prospectus Amendment to each Purchaser.
- (e) Each Agent represents and warrants to the Corporation and acknowledges that the Corporation is relying upon such representations and warranties in entering into this Agreement that:

- (i) it is a valid and subsisting corporation, duly incorporated and in good standing under the laws of the jurisdiction in which it was incorporated;
 - (ii) it holds all licenses and permits that are required for carrying on its business in the manner in which such business has been carried on;
 - (iii) it has good and sufficient right and authority to enter into this Agreement and complete the transactions contemplated under this Agreement on the terms and conditions set forth herein;
 - (iv) all information reasonably requested by each respective Agent and their counsel in connection with the due diligence investigations of the Agents will be treated by each respective Agent and their counsel as confidential and will only be used in connection with the Offering; and
 - (v) it is an appropriately registered investment dealer under provincial securities laws, rules and regulations of the Canadian Selling Jurisdictions so as to permit it to lawfully fulfil its obligations hereunder.
- (f) The representations and warranties of the Agents contained in this Agreement shall be true at the Closing Time and on the Agents' Option Closing Date and they shall survive the completion of the transactions contemplated under this Agreement until the third anniversary of the Closing Date.

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

4. Deliveries

- (a) Prior to filing the Prospectus Supplement, the Corporation shall deliver, or cause to be delivered to Agents:
 - (i) a copy of the Prospectus;
 - (ii) a copy of any other document required to be filed or is otherwise delivered by the Corporation in respect of the Offering under the laws of each of the Selling Jurisdictions in compliance with Applicable Securities Laws, to the extent not available on SEDAR;
 - (iii) the private placement memorandum incorporating the Prospectus prepared for use in connection with the Offering for the sale of the Offered Units and/or Additional Warrants in the United States (the "**U.S. Memorandum**"), and, forthwith after preparation, any amendment to the U.S. Memorandum;
 - (iv) copies of correspondence indicating that the application for the listing and posting for trading on the TSX of the Unit Shares, Warrants and Warrant Shares

issuable in connection with the Offering (including, for greater certainty, Common Shares issued in connection with the exercise of the Compensation Warrants) have been approved for listing subject only to satisfaction by the Corporation of certain standard post-Closing conditions imposed by the TSX (the “**Standard Listing Conditions**”), as shall be set out in the TSX conditional approval letter in respect of the Offering (the “**TSX Letter**”), and which Standard Listing Conditions shall, for the avoidance of doubt, exclude any requirement for shareholder approval; and

- (v) a “long form” comfort letter dated the date of the Prospectus Supplement, in form and substance satisfactory to the Agents, addressed to the Agents from the Corporation’s Auditors with respect to financial and accounting information relating to the Corporation contained in the Prospectus, which letter shall be based on a review by the Corporation’s Auditors within a cut-off date of not more than two Business Days prior to the date of the letter, which letter shall be in addition to the Corporation’s Auditors consent letter addressed to the Canadian Securities Regulators.

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

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

- (c) The Corporation shall cause commercial copies of the Prospectus and the U.S. Memorandum to be delivered to the Agents without charge, in such numbers and in such cities as the Agents may reasonably request. Such delivery shall be effected as soon as possible and, in any event, no later than 5:00 p.m. (Toronto time) on September 14, 2016 or such other date and time as may be agreed upon by the Agents and the Corporation.

5. Material or Significant Change During Distribution

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

6. Covenants of the Corporation

The Corporation hereby covenants to the Agents that the Corporation:

- (a) shall prior to the Closing Time (and the Agents’ Option Closing Time, as applicable), allow the Agents (and their counsel and consultants) to conduct all due diligence which the Agents may reasonably require or consider necessary or appropriate in order to fulfill the Agents’ obligations as registrants to complete the Offering as provided herein. The Corporation will provide to the Agents (and their counsel and consultants) reasonable

access to the Corporation's properties (if any), senior management personnel and corporate, financial and other records, for the purposes of conducting such due diligence. Without limiting the scope of the due diligence inquiry the Agents (or their counsel and consultants) may conduct, the Corporation shall also make available its directors, senior management and counsel to answer any questions which the Agents may have and to participate in one or more due diligence sessions to be held prior to Closing (or the Agents' Option Closing, as applicable) (collectively, the "**Due Diligence Session**"). The Agents shall distribute a list of written questions in advance of each Due Diligence Session;

- (b) shall forthwith advise the Agents of, and provide the Agents with copies of, any written communications relating to:
 - (i) the issuance by any securities regulatory authority, including the TSX, of any order suspending or preventing the use of the Prospectus or any Prospectus Amendment or any cease trading or stop order or any halt in trading relating to the Common Shares or the institution or threat of any proceedings for that purpose; and
 - (ii) the receipt of any material communication from any securities regulatory authority, including the TSX, or other authority relating to the Prospectus or any Prospectus Amendment or the Offering;
- (c) shall use its commercially reasonable best efforts to prevent the issuance of any order referred to in (b)(i) above and, if issued, shall forthwith take all reasonable steps which it is able to take and which may be necessary or desirable in order to obtain the withdrawal thereof as soon as is reasonably practicable;
- (d) shall use its commercially reasonable best efforts to maintain its status as a "reporting issuer" (or the equivalent thereof) not in default of the requirements of the Applicable Securities Laws of each of the Canadian Selling Jurisdictions for as long as any Warrants or Additional Warrants remain outstanding, other than in a business combination or similar transaction where all the outstanding securities of the Corporation have been exchanged for cash or the securities of another issuer which is a reporting issuer under any Applicable Securities Laws;
- (e) shall use its commercially reasonable best efforts to maintain the listing of the Common Shares and the Warrants on the TSX or such other recognized stock exchange or quotation system as the Agents may approve, acting reasonably, for as long as any Warrants or Additional Warrants remain outstanding, other than in a business combination or similar transaction where all the outstanding securities of the Corporation have been exchanged for cash or the securities of another issuer which is a reporting issuer under any Applicable Securities Laws;
- (f) shall use its commercially reasonable efforts to ensure that the Unit Shares, the Warrants and the Warrant Shares (including for greater certainty any Common Shares underlying the Compensation Warrants) will be conditionally approved for listing on the TSX upon their issue;

- (g) shall use the net proceeds of the offering of the Offered Units and/or Additional Warrants contemplated herein in the manner and subject to the qualifications described in the Prospectus Supplement under the heading “Use of Proceeds”; and
- (h) shall, as soon as practicable, use its commercially reasonable efforts to receive all necessary consents to the transactions contemplated herein.

7. Representations, Warranties and Covenants of the Corporation

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

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

- (g) the definitive form of certificate representing the Common Shares complies with the requirements of the *Business Corporations Act* (Ontario), complies with the requirements of the TSX Manual and does not conflict with the constating documents of the Corporation;
- (h) the Financial Statements:
 - (i) have been prepared in accordance with international financial reporting standards in Canada consistently applied throughout the period referred to therein;
 - (ii) contain no misrepresentation and present fairly, in all material respects, the financial position (including the assets and liabilities, whether absolute, contingent or otherwise) of the Corporation as at such dates and results of operations of the Corporation for the periods then ended; and
 - (iii) contain and reflect adequate provision or allowance for all reasonably anticipated liabilities, expenses and losses of the Corporation,

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

- (i) the Corporation has not declared or paid any dividends or declared or made any other payments or distributions on or in respect of any of the Common Shares and has not, directly or indirectly, redeemed, purchased or otherwise acquired any of its securities or agreed to do so or otherwise effected any return of capital with respect to such securities;
- (j) all taxes (including income tax, capital tax, payroll taxes, employer health tax, workers' compensation payments, property taxes, custom and land transfer taxes), duties, royalties, levies, imposts, assessments, deductions, charges or withholdings and all liabilities with respect thereto including any penalty and interest payable with respect thereto (collectively, "**Taxes**") due and payable by the Corporation have been paid except where the failure to pay such taxes would not have a Material Adverse Effect. All tax returns, declarations, remittances and filings required to be filed by the Corporation have been filed with all appropriate governmental authorities and all such returns, declarations, remittances and filings are complete and accurate and no material fact or facts have been omitted therefrom which would make any of them misleading except where such failure would not have a Material Adverse Effect. The Corporation has not received any written notice regarding examination of any tax return of the Corporation currently in progress and the Corporation is not aware of any facts that could give rise to any such examination and there are no issues or disputes outstanding with any governmental authority respecting any Taxes that have been paid, or may be payable, by the Corporation except:
 - (i) where such examinations would not have a Material Adverse Effect; or
 - (ii) as disclosed in Note 7 of the Interim Financial Statements;
- (k) the Scientific Research and Experimental Development ("**SR&ED**") credits receivable described in the Offering Documents and any other SR&ED credits otherwise applied for by the Corporation are based on underlying work, expenses and claims of the Corporation giving rise to such SR&ED credits which satisfy the requirements of the *Income Tax Act* (Canada) in order for the Corporation to claim or have claimed such SR&ED credits, and

to the knowledge of the Corporation there are no facts, circumstances or basis upon which the applicable taxing authority could reject, disallow, adversely reassess or deny the Corporation any such SR&ED credits, except:

- (i) as disclosed in Note 7 of the Interim Financial Statements; or
 - (ii) as otherwise disclosed to the Agents in writing;
- (l) the Corporation's Auditors, which are the auditors who audited the Audited Financial Statements and who provided their audit report thereon, are independent public accountants under Applicable Securities Laws of the Canadian Selling Jurisdictions and there has never been a "reportable disagreement" (within the meaning of NI 51-102) between the Corporation and the Corporation's Auditors;
- (m) the Corporation maintains a system of internal accounting controls sufficient to provide reasonable assurance that:
- (i) transactions are executed in accordance with management's general or specific authorization;
 - (ii) transactions are recorded as necessary to permit preparation of financial statements in conformity with international financial reporting standards and to maintain accountability for assets;
 - (iii) access to assets is permitted only in accordance with management's general or specific authorization; and
 - (iv) the recorded accountability for assets is compared with existing assets at reasonable intervals and appropriate action is taken with respect to any differences;
- (n) the Corporation is in compliance with the certification requirements contained in National Instrument 52-109 – *Certification of Disclosure in Issuers' Annual and Interim Filings* of the Canadian Securities Administrators with respect to the Corporation's annual and interim filings with Canadian securities regulators;
- (o) the audit committee of the Corporation is comprised and operates in accordance with the requirements of National Instrument 52-110 – *Audit Committees* of the Canadian Securities Administrators;
- (p) except for the Warrants, the Compensation Warrants and as set forth in Schedule "A" to this Agreement, no holder of outstanding securities of the Corporation will be entitled to any pre-emptive or any similar rights to subscribe for any of the Common Shares or other securities of the Corporation, and no rights, warrants or options to acquire, or instruments convertible into or exchangeable for, any shares in the capital of the Corporation are outstanding;
- (q) all information which has been prepared by the Corporation relating to the Corporation and its business, properties and liabilities that is or has been publicly disclosed or otherwise provided to the Agents or their counsel, including any investor or corporate presentations posted on the Corporation's website, and all financial, marketing, sales and

operational information, is, as of the date of such information, true and correct in all material respects, contains no misrepresentation and no fact or facts have been omitted therefrom which would make such information misleading;

- (r) except as properly disclosed in the Offering Documents, the Corporation has not approved, has not entered into any agreement in respect of, and to the knowledge of the Corporation there are no facts or circumstances in respect of:
 - (i) the purchase of any material property or assets or any interest therein or the sale, transfer or other disposition of any material property or assets or any interest therein currently owned, directly or indirectly, by the Corporation whether by asset sale, transfer of shares or otherwise;
 - (ii) the issuance of any securities of the Corporation or a right of first refusal with respect to the issuance by the Corporation of any securities;
 - (iii) any change in control of the Corporation (whether by sale, transfer or other disposition of shares or sale, transfer, lease or other disposition of all or substantially all of the property and assets of the Corporation);
 - (iv) a proposed or planned disposition of shares by any shareholder who owns, directly or indirectly, 10% or more of the outstanding shares of the Corporation; or
 - (v) an agreement in force or having the effect of which in any manner affects or will affect the voting or control of any of the securities of the Corporation;
- (s) no legal or governmental proceedings are pending to which the Corporation is a party or to which its property is subject that would result individually or in the aggregate in a Material Adverse Effect and, to the knowledge of the Corporation, no such proceedings have been threatened against, or are contemplated with respect to, the Corporation or its properties;
- (t) the Corporation is the legal and beneficial owner, free of all mortgages, liens, charges, pledges, security interests, encumbrances, claims or demands whatsoever, of the interests in personal property referred to as owned by it in the Prospectus, and all material agreements under which the Corporation holds an interest in personal property are in good standing according to their terms;
- (u) the minute books and records of the Corporation made available to counsel for the Agents in connection with their due diligence investigations of the Corporation are all of the minute books and records of the Corporation and contain copies of all material proceedings of the shareholders, the board of directors and all committees of the board of directors of the Corporation to the date of review of such corporate records and minute books, and there have been no other meetings, resolutions or proceedings of the shareholders, board of directors or any committees of the board of directors of the Corporation not reflected in such minute books and other records;
- (v) the Corporation is, and will be at the Closing Time (and with respect to the sale of any Additional Offered Units and/or Additional Warrants, the Agents' Option Closing Time), an Eligible Issuer and a reporting issuer under Applicable Securities Laws in the

Canadian Selling Jurisdictions, and the Corporation is not in default in any material respect of any requirement of Applicable Securities Laws and the Corporation is not included in a list of defaulting reporting issuers maintained by the applicable securities regulators. In particular, without limiting the foregoing, the Corporation is in compliance at the date hereof with its obligations to make timely disclosure of all material changes relating to it and, since January 1, 2014, no such disclosure has been made on a confidential basis and there is no material change relating to the Corporation which has occurred and with respect to which the requisite material change statement has not been filed, except to the extent that the Offering and the transactions contemplated thereunder may constitute a material change;

- (w) the execution and delivery of each of this Agreement, the Warrant Indenture and the Compensation Warrant Certificates and the compliance with all provisions contemplated thereunder, the offering and sale of the Offered Units and/or Additional Warrants and the issuance of the Offered Units and/or Additional Warrants and the Compensation Warrants does not and will not:
 - (i) require the consent, approval, authorization, registration or qualification of or with any governmental authority, stock exchange, securities regulatory authority or other third party (in each case in the Selling Jurisdictions), except: (A) such as have been obtained; or (B) such as may be required and will be obtained by the Closing Time;
 - (ii) result in a breach of, or default under, nor create a state of facts which, after notice or lapse of time or both, would result in a breach of or default under, nor conflict with:
 - (A) any of the terms, conditions or provisions of the constating documents or resolutions of the shareholders, board of directors or any committee of the board of directors of the Corporation;
 - (B) any Applicable Law applicable to the Corporation, including, without limitation, the Applicable Securities Laws, or any judgment, order or decree of any governmental body, agency or court having jurisdiction over the Corporation; or
 - (C) any Material Agreement; or
 - (iii) give rise to any lien, charge or claim in or with respect to the properties or assets now owned or hereafter acquired by the Corporation or the acceleration of or the maturity of any debt under any indenture, mortgage, lease, agreement or instrument binding or affecting the Corporation or any of its properties;
- (x) the authorized capital of the Corporation consists of an unlimited number of Common Shares of which (as of September 12, 2016) 147,398,113 Common Shares are issued and outstanding as fully paid and non-assessable;
- (y) other than as contemplated hereby, there is no person acting or purporting to act at the request or on behalf of the Corporation that is entitled to any brokerage or finder's fee in connection with the Offering;

- (z) all material disclosure filings required to be made by the Corporation pursuant to Applicable Securities Laws from January 1, 2014 have been made and such disclosure and filings contained no material misrepresentation as at the respective dates thereof;
- (aa) all forward-looking information and statements of the Corporation contained in the Prospectus and the assumptions underlying such information and statements, subject to any qualifications contained therein, including any forecasts and estimates, expressions of opinion, intention and expectation, as at the time they were or will be made, were or will be made or based on assumptions that are reasonable;
- (bb) the statistical, industry and market related data included in the Prospectus are derived from sources which the Corporation reasonably believes to be accurate, reasonable and reliable, and such data agrees in all material respects with the sources from which it was derived;
- (cc) the Corporation is not aware of any legislation, or proposed legislation (published by a legislative body), which it anticipates will materially and adversely affect the business, affairs, operations, assets, liabilities (contingent or otherwise) or prospects of the Corporation;
- (dd) the Corporation is in material compliance with all Applicable Laws respecting employment and employment practices, terms and conditions of employment, pay equity and wages, except where non-compliance with such laws could not reasonably be expected to have a Material Adverse Effect, and has not and is not engaged in any unfair labour practice;
- (ee) except as properly disclosed in the Offering Documents, there has not been and there is not currently any labour disruption or conflict which could reasonably be expected to have a Material Adverse Effect;
- (ff) the Corporation does not have any loans or other indebtedness outstanding which have been made to any of its officers, directors or employees, past or present, any known holder of more than 10% of any class of shares of the Corporation, or any person not dealing at arm's length with the Corporation that are currently outstanding;
- (gg) except as disclosed in the Disclosure Record, none of the directors, officers or employees of the Corporation, any known holder of more than 10% of any class of shares of the Corporation, or any associate or affiliate of any of the foregoing persons, had or has any material interest, direct or indirect, in any transaction or any proposed transaction that was or is material to the Corporation;
- (hh) the Corporation maintains insurance covering the properties, operations, personnel and businesses of the Corporation as the Corporation reasonably deems adequate; such insurance insures against such losses and risks to an extent which is adequate in the reasonable opinion of management of the Corporation to protect the Corporation and the business of the Corporation; all such insurance is fully in force on the date hereof and will be fully in force on the Closing Date; and the Corporation has no reason to believe that it will not be able to renew any such insurance as and when such insurance expires;
- (ii) the Corporation (i) is in compliance with any and all Applicable Laws relating to the protection of human health and safety, the environment or hazardous or toxic substances

or wastes, pollutants or contaminants (“**Environmental Laws**”), (ii) has received all permits, licenses or other approvals required under applicable Environmental Laws to conduct its business, (iii) is in compliance with all terms and conditions of any such permit, license or approval, (iv) to the knowledge of the Corporation, there have been no past, and there are no pending or threatened claims, complaints, notices or requests for information received by the Corporation with respect to any alleged material violation of any Environmental Law, and (v) to the knowledge of the Corporation, no conditions exist at, on or under which, with the passage of time, or the giving of notice or both, would give rise to liability under any Environmental Law; except where such non-compliance, failure to receive a permit, licence or other approval, claim or condition would not, singly or in the aggregate, have or would be expected to have a Material Adverse Effect on the Corporation;

- (jj) no order, ruling or determination having the effect of suspending the sale or ceasing the trading in any securities of the Corporation has been issued by any securities regulatory authority and is continuing in effect and no proceedings for that purpose have been instituted or, to the knowledge of the Corporation, are pending, contemplated or threatened by any regulatory authority;
- (kk) the Corporation has not made any loans to, or guaranteed the obligations of, any person;
- (ll) with respect to each of the premises of the Corporation which is material to the Corporation and which the Corporation occupies as tenant (the “**Leased Premises**”), the Corporation has the right to occupy and use such Leased Premises, and each of the leases pursuant to which the Corporation occupies the Leased Premises are in good standing and in full force and effect, and neither the Corporation nor any other party thereto is in breach of any material covenants, conditions or obligations contained therein;
- (mm) there have not been and there are not currently any material disagreements with any of the employees of the Corporation which are adversely affecting the carrying on of the business of the Corporation;
- (nn) there is no action, suit, proceeding, inquiry or investigation before or brought by any court or governmental agency or body, domestic or foreign, including, for the avoidance of doubt, any Regulatory Authority, now pending or threatened against or affecting the Corporation, which would cause a Material Adverse Effect;
- (oo) the Transfer Agent at its principal offices in the City of Toronto has been duly appointed as registrar and transfer agent for the Common Shares;
- (pp) neither the Corporation, nor to the knowledge of the Corporation, any director, officer, agent, employee or other person associated with or acting on behalf of the Corporation has: (i) used any corporate funds for any unlawful contribution, gift, entertainment or other unlawful expense relating to political activity; (ii) made any direct or indirect unlawful payment to any foreign or domestic government official or employee from corporate funds; (iii) violated any applicable anti-bribery, export control and economic sanctions laws including any provision of the *Corruption of Foreign Officials Act* (Canada) or the *United States Foreign Corrupt Practice Act*; or (iv) made any bribe, rebate, payoff, influence payment, kickback or other unlawful payment;

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

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

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

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

- (iii) the Corporation is not aware of any other party to such license or agreement that is in breach or default thereof, and is not aware of any event that has occurred that, with notice or lapse of time would constitute such a breach or default or permit termination, modification or acceleration under such license or agreement;
- (sss) for each taxable year, if any, that the Corporation qualifies as a “passive foreign investment corporation” (a “**PFIC**”), as defined in Section 1297(a) of the Internal Revenue Code of 1986, as amended (the “**Code**”), in the case of a Purchaser of Offered Units and/or Additional Warrants that is a “United States person,” as defined in Section 7701(a)(30) of the Code, and that is making or has made an effective “qualified electing fund” election, as defined in Section 1295 of the Code with respect to the Corporation (a “**QEF Election**”), the Corporation will provide to such Purchaser, upon written request: (a) a “PFIC Annual Information Statement” as described in Treasury Regulation Section 1.1295-1(g) (or any successor Treasury Regulation), including all representations and statements required by such PFIC Annual Information Statement; and (b) all additional information that such Purchaser is required to obtain in connection with making or maintaining a QEF Election. The Corporation shall also take such other actions as may reasonably be necessary to facilitate and maintain a QEF Election by any such purchaser. With regard to the PFIC Annual Information Statement, (i) except as otherwise requested by any particular Purchaser, the Corporation must provide a PFIC Annual Information Statement described in Treasury Regulation Section 1.1295-1(g)(1)(ii)(A) or (B); and (ii) as permitted by Treasury Regulation Section 1.1293-1(a)(2)(A), the Corporation will calculate and report the amount of each category of long-term capital gain described in Section 1(h) of the Code that was recognized by the Corporation. The Corporation may elect to provide such information (including its PFIC Annual Information Statement) on its website;
- (ttt) none of the Corporation nor any of its predecessors has had the registration of a class of securities under the U.S. Exchange Act revoked by the United States Securities Exchange Commission pursuant to Section 12(j) of the U.S. Exchange Act and any rules or regulations promulgated thereunder;
- (uuu) the operations of the Corporation are and have been conducted at all times in compliance with, in each case to the extent applicable, the financial recordkeeping and reporting requirements of the *United States Currency and Foreign Transactions Reporting Act of 1970*, as amended, the *Proceeds of Crime (Money Laundering) and Terrorist Financing Act (Canada)*, the anti-money laundering statutes of all jurisdictions, the rules and regulations thereunder and any related or similar rules, regulations or guidelines, issued, administered or enforced by any governmental agency (collectively, the “**Anti-Money Laundering Laws**”), and no action, suit or proceeding by or before any court or governmental agency, authority or body or any arbitrator involving the Corporation with respect to the Anti-Money Laundering Laws is pending or, to the knowledge of the Corporation, threatened; and
- (vvv) neither the Corporation, nor, to the knowledge of the Corporation, any director, officer, agent, employee or affiliate of the Corporation is currently subject to any U.S. sanctions administered by the Office of Foreign Assets Control of the U.S. Treasury Department (“**OFAC**”) and the Corporation will not directly or indirectly use the proceeds of the Offering, or lend, contribute or otherwise make available such proceeds to any subsidiary, joint venture partner or other person or entity, for the purpose of financing the activities of any person currently subject to any U.S. sanctions administered by OFAC.

8. Closing

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

9. Closing Conditions

The Agents' obligation to complete the Closing at the Closing Time (and with respect to the sale of the Additional Offered Units and/or Additional Warrants, at the Agents' Option Closing Time) shall be subject to the accuracy of the representations and warranties of the Corporation contained in this Agreement as of the date of this Agreement and as of the Closing Date (and with respect to the sale of any Additional Offered Units and/or Additional Warrants, as of the Agents' Option Closing Date), the performance by the Corporation of its obligations under this Agreement and the following conditions:

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

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

and delivery of such Offered Units and/or Additional Warrants to the public through dealers registered under the applicable laws of each of the Canadian Selling Jurisdictions who have complied with the relevant provisions of such laws and the terms of their registration;

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

- (iii) the constating documents of the Corporation delivered at Closing are full, true and correct copies, unamended, and in effect on the date thereof;
 - (iv) the minutes or other records of various proceedings and actions of the Corporation's board of directors relating to the Offering and delivered at Closing are full, true and correct copies thereof and have not been modified or rescinded as of the date thereof;
 - (v) no order, ruling or determination having the effect of suspending the sale or ceasing the trading of the Common Shares or any other securities of the Corporation has been issued by any stock exchange, securities commission or regulatory authority and is continuing in effect and no proceedings for that purpose have been instituted or are pending;
 - (vi) since the respective dates as of which information is given in the Prospectus as amended by any Prospectus Amendment: (A) there has been no material change (actual, anticipated, contemplated, proposed or threatened, whether financial or otherwise) in the business, financial condition, affairs, operations, business prospects, assets, liabilities or obligations (contingent or otherwise) or capital of the Corporation; and (B) other than the Offering and except as disclosed in the Prospectus and the Documents Incorporated by Reference therein or any Prospectus Amendment, as the case may be, no transaction has been entered into by the Corporation which constitutes a material change as defined in Applicable Securities Laws of the Canadian Selling Jurisdictions;
 - (vii) none of the documents filed with applicable securities regulatory authorities since January 1, 2014, contained a misrepresentation as at the time the relevant document was filed that has not since been corrected; and
 - (viii) there are no contingent liabilities affecting the Corporation which are material to the Corporation, other than as disclosed in the Prospectus and the Documents Incorporated by Reference therein or any Prospectus Amendment, as the case may be.
- (f) the Agents shall have received a "long form" comfort letter dated the Closing Date, in form and substance satisfactory to the Agents from the Corporation's Auditors confirming the continued accuracy of the comfort letter to be delivered to the Agents pursuant to subsection 4(a)(v) with such changes as may be necessary to bring the information in such letter forward to a date not more than two Business Days prior to the Closing Date, which changes shall be acceptable to the Agents;
 - (g) the Corporation's board of directors shall have authorized and approved the execution and delivery of this Agreement, the Warrant Indenture and the Compensation Warrant Certificates, the allotment, issuance and delivery of the Unit Shares and the creation and issuance of the Warrants and Compensation Warrants and, upon the due exercise of the Warrants (including, for greater certainty, any Common Shares issuable on the exercise of the Compensation Warrants), the allotment, issuance and delivery of the Warrant Shares, and all matters relating thereto;
 - (h) the Corporation shall not have received any notice from the TSX that the Unit Shares, Warrants or Warrant Shares (including for greater certainty any Common Shares issuable

on the exercise of the Compensation Warrants) shall not be accepted for listing on the TSX;

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

The Corporation agrees that the aforesaid legal opinions and certificates to be delivered at the Closing Time (and with respect to the sale of any Additional Offered Units and/or Additional Warrants, at the Agents' Option Closing Time) will be addressed to the Agents and the Agents' counsel.

10. All Terms to be Conditions

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

11. Rights of Termination

Without limiting any of the other provisions of this Agreement, the Agents will be entitled, at their option, to terminate and cancel, without any liability on their part or on the part of the Purchasers, their

obligations under this Agreement by giving written notice to the Corporation at any time prior to the Closing Time if, after the date hereof and at any time prior to the Closing:

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

the Compensation Warrants) shall not be accepted for listing on the TSX; provided that, solely with respect to the Warrants, this termination right will not be exercisable by the Agents if the minimum distribution requirements set out in Section 609(b) of the TSX Manual are not met solely as a result actions of any one Agent.

The rights of termination contained herein are in addition to any other rights or remedies that the Agents may have in respect of any default, act or failure to act or non-compliance by the Corporation in respect of any of the matters contemplated by this Agreement or otherwise.

In the event of any such termination, there shall be no further liability on the part of the Agents to the Corporation or on the part of the Corporation to the Agents except in respect of any liability which may have arisen prior to or arise after such termination under any of Sections 12 and 13.

12. Indemnity and Contribution

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

- (a) any information or statement (except any information or statement relating solely to or provided by the Agents) contained in the Offering Documents, which at the time and in light of the circumstances under which it was made contains or is alleged to contain a misrepresentation (as defined in the *Securities Act* (Ontario)) or any omission or any alleged omission to state therein any fact or information (except facts or information relating solely to the Agents) required to be stated therein or necessary to make any of the statements therein not misleading in light of the circumstances in which they are made;
- (b) the omission or alleged omission to state in any certificate of the Corporation or of any officers of the Corporation delivered in connection with the Offering any material fact (except facts or information relating solely to the Agents) required to be stated therein where such omission or alleged omission constitutes or is alleged to constitute a misrepresentation;
- (c) any order made or any inquiry, investigation or proceeding commenced or threatened by any securities regulatory authority, stock exchange or by any other competent authority, based upon any misrepresentation (as defined in the *Securities Act* (Ontario)) or alleged misrepresentation (except a misrepresentation relating solely to the Agents) in the Offering Documents (except any document or material delivered or filed solely by the

Agents) based upon any failure or alleged failure to comply with Applicable Securities Laws (other than any failure or alleged failure to comply by the Agents) preventing and restricting the trading in or the sale of the Offered Units in any of the Selling Jurisdictions;

- (d) the non-compliance or alleged non-compliance by the Corporation with any material requirement of Applicable Securities Laws, including the Corporation's non-compliance with any statutory requirement to make any document available for inspection; or
- (e) material breach of any representation, warranty or covenant of the Corporation contained in this Agreement or the Engagement Letter or the failure of the Corporation to comply in all material respects with any of its obligations hereunder or thereunder,

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

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

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

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

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

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

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

- (a) the employment of such counsel has been authorized in writing by the Corporation;
- (b) the Corporation has not assumed the defence within a reasonable period of time after receiving notice of such Claim;
- (c) the named parties to any such Claim include both the Corporation and the Indemnified Party and the Indemnified Party shall have been advised by counsel that there may be a conflict of interest between the Corporation and the Indemnified Party; or
- (d) the Indemnified Party has been advised in writing by counsel that there are one or more defences available to the Indemnified Party which are different from or in addition to those available to the Corporation, which makes representation by the same counsel inappropriate.

The rights accorded to the Indemnified Parties hereunder shall be in addition to any rights an Indemnified Party may have at common law or otherwise.

If for any reason the foregoing indemnification is unavailable (other than in accordance with the terms hereof) to the Indemnified Parties (or any of them) or insufficient to hold them harmless, then the Corporation shall contribute to the amount paid or payable by the Indemnified Parties as a result of such Claim in such proportion as is appropriate to reflect not only the relative benefits received by the Corporation on the one hand and the Indemnified Parties on the other hand, but also the relative fault of the Corporation and the Indemnified Parties, as well as any other equitable considerations which may be relevant; provided that the Corporation shall, in any event, contribute to the amount paid or payable by the Indemnified Parties as a result of such Claim, any amount in excess of the fees actually received by the Indemnified Parties hereunder in which case such fees and expenses will be for the Corporation's account.

The Corporation hereby acknowledges the Agents as trustees for each of the other Indemnified Parties of the Corporation's covenants under this indemnity with respect to such persons and the Agents agree to accept such trust and to hold and enforce such covenants on behalf of such persons.

The Corporation agrees to immediately reimburse the Agents monthly for the time spent by an Indemnified Party in connection with any Claim at their reasonable per diem rates. The Corporation also agrees that if any Claim shall be brought against, or an investigation commenced in respect of the Corporation or the Corporation and the Indemnified Parties shall be required to testify, participate or respond in respect of or in connection with the performance of professional services rendered to the Corporation by an Indemnified Party hereunder or otherwise in connection with the matters referred to in this Agreement, the Agents shall have the right to employ their own counsel in connection therewith and the Corporation will immediately reimburse the Agents monthly for the time spent by an Indemnified Party in connection therewith at their reasonable per diem rates together with such fees and disbursements and reasonable out-of-pocket expenses as may be incurred, including the fees and disbursements of the Agents' counsel.

13. Expenses

Whether or not the transactions contemplated by this Agreement shall be completed, all expenses of or incidental to the Offering and all expenses of or incidental to all other matters in connection with the transaction set out in this Agreement shall be borne directly by the Corporation, including, without limitation, fees and expenses payable in connection with the qualification of the Offered Units and/or Additional Warrants and the Compensation Warrants for Distribution, fees and disbursements of counsel to the Agents incurred in connection with the Offering (to a maximum of \$60,000 plus disbursements and applicable taxes), all fees and disbursements of counsel to the Corporation and local counsel, all fees and expenses of the Corporation's Auditors, all fees or commissions payable in connection with sales of Offered Units and/or Additional Warrants to Excluded Subscribers, the reasonable fees and expenses relating to the marketing of the Offered Units and/or Additional Warrants (including, without limitation, "road shows", marketing meetings, marketing documentation and institutional investor meetings) and all reasonable out-of-pocket expenses of the Agents (including the Agents' travel expenses in connection with due diligence, marketing meetings and "road shows") and all costs incurred in connection with the preparation and printing of the Prospectus, any Prospectus Amendment, and certificates representing the Unit Shares, Warrants and Compensation Warrants issued in connection with the Offering. All reasonable expenses incurred by or on behalf of the Agents and all fees and disbursements of counsel to the Agents payable pursuant to the foregoing shall be deducted from the aggregate purchase price for the Offered Units and/or Additional Warrants in accordance with Section 8.

14. Survival of Representations, Warranties, Covenants and Agreements

The representations, warranties, covenants and agreements of the Corporation contained in this Agreement and in any certificate delivered pursuant to this Agreement or in connection with the purchase and sale of the Offered Units and/or Additional Warrants shall be true and correct at the Closing Time and the Agents' Option Closing Time and shall survive the purchase of the Offered Units and/or Additional Warrants and shall continue in full force and effect until the later of: (i) three years following the Closing Date; and (ii) the latest date under the Applicable Securities Laws in which a Purchaser of Offered Units and/or Additional Warrants is resident or, if the Applicable Securities Laws do not specify such a date, the latest date under the *Limitations Act, 2002* (Ontario).

15. Conflict of Interest

The Corporation acknowledges that the Agents and their respective affiliates carry on a range of businesses, including providing stockbroking, investment advisory, research, investment management and custodial services to clients and trading in financial products as agent or principal. It is possible that the Agents and other entities in their respective groups that carry on those businesses may hold long or short positions in securities of companies or other entities, which are or may be involved in the transactions contemplated in this Agreement and effect transactions in those securities for their own account or for the account of their respective clients. The Corporation agrees that these divisions and entities may hold such positions and effect such transactions without regard to the Corporation's interests under this Agreement.

16. Fiduciary

The Corporation hereby acknowledges that the Agents are acting solely as agents in connection with the offer and sale of the Offered Units and/or Additional Warrants. The Corporation further acknowledges that the Agents are acting pursuant to a contractual relationship created solely by this Agreement entered into on an arm's length basis, and in no event do the parties intend that the Agents act or be responsible as a fiduciary to the Corporation, its management, shareholders or creditors or any other person in connection with any activity that the Agents may undertake or have undertaken in furtherance of such

offer and sale of the Corporation's securities, either before or after the date hereof. The Agents hereby expressly disclaim any fiduciary or similar obligations to the Corporation, either in connection with the transactions contemplated by this Agreement or any matters leading up to such transactions, and the Corporation hereby confirms its understanding and agreement to that effect. The Corporation and the Agents agree that they are each responsible for making their own independent judgments with respect to any such transactions and that any opinions or views expressed by the Agents to the Corporation regarding such transactions, including, but not limited to, any opinions or views with respect to the price or market for the Corporation's securities, do not constitute advice or recommendations to the Corporation. The Corporation and the Agents agree that the Agents are acting as principal and not the agents or fiduciaries of the Corporation and the Agents have not, and the Agents will not assume, any advisory responsibility in favour of the Corporation with respect to the transactions contemplated hereby or the process leading thereto (irrespective of whether the Agents have advised or are currently advising the Corporation on other matters). The Corporation hereby waives and releases, to the fullest extent permitted by law, any claims that the Corporation may have against the Agents with respect to any breach or alleged breach of any fiduciary duty to the Corporation in connection with the transactions contemplated by this Agreement.

17. Notice

Unless otherwise expressly provided in this Agreement, any notice or other communication to be given under this Agreement (a "**Notice**") shall be in writing addressed as follows:

If to the Corporation, addressed and sent to:

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

Attention: John T. Hargrove, Chief Executive Officer
Email: john.hargrove@titanmedicalinc.com

with a copy (which shall not constitute notice) to:

Borden Ladner Gervais LLP
Scotia Plaza, 44th Floor
40 King Street West
Toronto, ON M5H 3Y4

Attention: Manoj Pundit
Fax: (416) 682-2842
Email: mpundit@blg.com

If to the Agents, addressed and sent to:

Bloom Burton & Co. Limited
65 Front Street East, Suite 300
Toronto, ON M5E 1B5

Attention: Michael Pollard
Email: mpollard@bloomburton.com

Echelon Wealth Partners Inc.
130 King Street West
Suite 2500, P.O. Box 47
Toronto, ON M5X 2A2

Attention: David Cusson
Email: david.cusson@echelonpartners.com

with a copy (which shall not constitute notice) to:

Baker & McKenzie LLP
Brookfield Place, Bay/Wellington Tower
181 Bay Street, Suite 2100
Toronto, Ontario M5J 2T3

Attention: Sonia Yung
Fax: (416) 863.6275
Email: sonia.yung@bakermckenzie.com

or to such other address as any of the persons may designate by Notice given to the others.

Each Notice shall be personally delivered to the addressee or sent by fax or email to the addressee and: (i) a Notice which is personally delivered shall, if delivered on a Business Day, be deemed to be given and received on that day and, in any other case, be deemed to be given and received on the first Business Day following the day on which it is delivered; and (ii) a Notice which is sent by fax or email shall be deemed to be given and received on the first Business Day following the day on which it is sent, provided that the sender has evidence of a successful transmission, such as a fax confirmation or email receipt confirmation.

18. Entire Agreement

The provisions herein contained constitute the entire agreement between the parties relating to the Offering and supersede all previous communications, representations, understandings and agreements between the parties including, but not limited to, the Engagement Letter with respect to the subject matter hereof whether verbal or written.

19. Press Releases

Any press release connected with the Offering issued by the Corporation shall be issued only after consultation with the Agents and in compliance with Applicable Securities Laws. If the Offering is successfully completed, the Agents shall be permitted to publish, at the Agents' expense, such advertisements or announcements relating to the services provided hereunder in such newspaper or other publications as it may consider appropriate as long as such advertisement or announcement complies with Applicable Securities Laws.

20. Funds

Unless otherwise specified, all funds referred to in this Agreement shall be in Canadian dollars.

21. Time of the Essence

Time shall be of the essence of this Agreement.

22. Further Assurances

Each of the parties hereto shall cause to be done all such acts and things or execute or cause to be executed all such documents, agreements and other instruments as may reasonably be necessary or desirable for the purposes of carrying out the provisions and intent of this Agreement.

23. Assignment

Except as contemplated herein, no party hereto may assign this Agreement or any part hereof without the prior written consent of the other parties hereto. Subject to the foregoing, this Agreement shall enure to the benefit of, and shall be binding upon, the Corporation and the Agents and their successors and legal representatives, and nothing expressed or mentioned in this Agreement is intended or shall be construed to give any other person any legal or equitable right, remedy or claim under or in respect of this Agreement, or any provisions contained in this Agreement, this Agreement and all conditions and provisions of this Agreement being intended to be and being for the sole and exclusive benefit of such persons and for the benefit of no other person except that the covenants and indemnities of the Corporation set out under the heading "Indemnity and Contribution" shall also be for the benefit of the Indemnified Party.

24. Severability

If any provision of this Agreement is determined to be void or unenforceable in whole or in part, it shall be deemed not to affect or impair the validity of any other provision of this Agreement and such void or unenforceable provision shall be severable from this Agreement.

25. Singular and Plural, etc.

Unless otherwise expressly provided in this Agreement, words importing only the singular number include the plural and *vice versa* and words importing gender include all genders. References to "Sections", "subsections" or "subparagraphs" are to the appropriate section, subsection or subparagraph of this Agreement.

26. Governing Law

This Agreement shall be governed by and construed in accordance with the laws of the Province of Ontario and the laws of Canada applicable therein and the parties hereto irrevocably attorn to the jurisdiction of the courts of such province.

27. Language

The parties hereto confirm their express wish that this Agreement and all documents and agreements directly or indirectly relating thereto be drawn up in the English language.

Les parties reconnaissent leur volonté express que la présente convention ainsi que tous les documents et contrats s'y rattachant directement ou indirectement soient rédigés en anglais.

28. Counterparts

This Agreement may be executed by any one or more of the parties to this Agreement in any number of counterparts, each of which shall be deemed to be an original, but all such counterparts shall together constitute one and the same agreement.

29. Facsimile and Electronic Transmission

The Corporation and the Agents shall be entitled to rely on delivery by facsimile or other electronic means of an executed copy of this Agreement and acceptance by the Corporation and the Agents of that delivery shall be legally effective to create a valid and binding agreement between the Corporation and the Agents in accordance with the terms of this Agreement.

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]

If the foregoing is in accordance with your understanding and is agreed to by you, please signify your acceptance by executing this letter where indicated below and returning the same to the Agents upon which this letter as so accepted shall constitute an agreement between us.

Yours very truly,

BLOOM BURTON & CO. LIMITED

By: (signed) "*Jolyon Burton*"
Authorized Officer

ECHELON WEALTH PARTNERS INC.

By: (signed) "*David Cusson*"
Authorized Officer

The foregoing offer is accepted and agreed to as of the date first above written.

TITAN MEDICAL INC.

By: (signed) "*Stephen Randall*"
Authorized Officer

SCHEDULE "A"

OPTIONS, WARRANTS AND CONVERTIBLE SECURITIES

OPTIONS

<u>EXERCISE PRICE</u>	<u>NUMBER</u>	<u>EXPIRY DATE</u>
0.56	663,368	August 2, 2018
0.83	49,591	March 21, 2018
0.96	305,107	December 20, 2018
1.00	4,015,824	August 24, 2021
1.02	272,612	December 23, 2020
1.08	644,292	January 27, 2021
1.39	19,746	December 16, 2019
1.39	47,532	May 15, 2017
1.49	102,759	February 14, 2017
1.51	16,796	August 11, 2020
1.72	684,751	June 9, 2020
1.76	106,096	March 6, 2019
1.94	482,560	May 21, 2019
Total	7,411,034	

WARRANTS

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

Ticker Symbol	Issue Date(s)	Expiry Date(s)	Number Issued	Number Outstanding	Exercise Price	Potential Proceeds
TMD.WT.B	December 22, 2011	December 22, 2016	4,880,000	3,484,500	\$1.75	6,097,875
NOT LISTED	March 14, 2012	March 14, 2017	1,986,755	390,729	\$1.77	691,590
TMD.WT.C	March 13, 2013	March 13, 2018	6,260,763	5,260,705	\$1.25	6,575,881
TMD.WT.D	February 19, 2014	February 19, 2017	9,142,500	8,317,856	\$2.00	16,635,712
TMD.WT.E	April 23, 2014	April 23, 2017	12,203,189	12,346,914	\$2.75	33,954,014
TMD.WT.F	November 16, 2015	November 16, 2020	7,012,195	7,012,195	\$1.60	11,219,512
TMD.WT.G	February 12, 2016	February 12, 2021	11,670,818	11,600,818	\$1.00	11,600,818

Ticker Symbol	Issue Date(s)	Expiry Date(s)	Number Issued	Number Outstanding	Exercise Price	Potential Proceeds
TMD.WT.G	February 23, 2016	February 23, 2021	1,746,789	1,746,789	\$1.00	1,746,789
TMD.WT.H	March 31, 2016	March 31, 2021	15,054,940	15,054,940	\$1.20	18,065,928
TMD.WT.H	April 14, 2016	April 14, 2021	2,258,241	2,258,241	\$1.20	2,709,889
TOTAL			72,216,190	67,473,687		109,298,008

BROKER WARRANTS

Issue Date	Number Issued	Exercise Price
February 12, 2016	794,168	\$0.90
February 23, 2016	122,275	\$0.90
March 31, 2016	1,032,845	\$1.00
April 14, 2016	158,076	\$1.00
TOTAL	2,107,364	

SCHEDULE “B”

COMPLIANCE WITH UNITED STATES SECURITIES LAWS

A. Definitions

Capitalized terms used in this Schedule “B” and not defined herein shall have the meanings ascribed thereto in the Agreement to which this Schedule is attached, and the following terms shall have the meanings indicated:

- (a) “**Accredited Investor**” means an institutional “accredited investor” within the meaning of Rule 501(a)(1), (2), (3) or (7) of Regulation D;
- (b) “**Dealer Covered Person**” has the meaning set forth below;
- (c) “**Directed Selling Efforts**” means “directed selling efforts” as that term is defined in Regulation S. Without limiting the foregoing, but for greater clarity in this Schedule “B”, it means, subject to the exclusions from the definition of directed selling efforts contained in Regulation S, any activity undertaken for the purpose of, or that could reasonably be expected to have the effect of, conditioning the market in the United States for any of the Offered Units, the Unit Shares, the Warrants or the Warrant Shares and includes the placement of any advertisement in a publication with a general circulation in the United States that refers to the offering of any of such securities;
- (d) “**Disqualification Event**” has the meaning set forth below;
- (e) “**Regulation D**” means Regulation D promulgated under the U.S. Securities Act;
- (f) “**Regulation D Securities**” has the meaning set forth below;
- (g) “**Regulation S**” means Regulation S promulgated under the U.S. Securities Act;
- (h) “**Rule 144A**” means Rule 144A under the U.S. Securities Act;
- (i) “**Substantial U.S. Market Interest**” means a “substantial U.S. market interest” as that term is defined in Regulation S;
- (j) “**U.S. Exchange Act**” means the United States Securities Exchange Act of 1934, as amended; and
- (k) “**U.S. Subscription Agreement**” has the meaning set forth below.

B. Representations, Warranties and Covenants of the Agent

Each Agent acknowledges and agrees that the Offered Units, the Unit Shares, the Warrants and the Warrant Shares have not been and will not be registered under the U.S. Securities Act or applicable state securities laws, and the Offered Units, the Unit Shares and the Warrants may be offered and sold only in transactions exempt from, or not subject to, the registration requirements of the U.S. Securities Act and any applicable state securities laws. Accordingly, each Agent represents, warrants and covenants to the Corporation that:

1. None of the Agent, the U.S. Selling Group Member, their respective affiliates or any person acting on any of its or their behalf has offered or will offer any Offered Units, Unit Shares or Warrants except: (a) in an “offshore transaction,” as such term is defined in Regulation S, outside the United States to non-U.S. Persons in accordance with Rule 903 of Regulation S; or (b) in the United States to, or for the account or benefit of, persons in the United States or U.S. Persons as provided in paragraphs 2 through 12 below. Accordingly, none of the Agent, the U.S. Selling Group Member, their respective affiliates or any person acting on any of its or their behalf, has made or will make (except as permitted in paragraphs 2 through 12 below): (i) any offer to sell, or any solicitation of an offer to buy, any Offered Units, Unit Shares or Warrants in the United States or to, or for the account or benefit of, any person in the United States or a U.S. Person; (ii) any sale of Offered Units, Unit Shares or Warrants to any purchaser unless, at the time the buy order was or is originated, the purchaser was outside the United States, not a U.S. Person and not acting for the account or benefit of a person in the United States or a U.S. Person, or the Agent, the U.S. Selling Group Member, their respective affiliates or person acting on its or their behalf reasonably believed that such purchaser was outside the United States, not a U.S. Person and not acting for the account or benefit of a person in the United States or a U.S. Person; or (iii) any Directed Selling Efforts.
2. It has not entered and will not enter into any contractual arrangement with respect to the offer and sale of the Offered Units, the Unit Shares or the Warrants, except with the U.S. Selling Group Member, its affiliates, any Selling Firm or with the prior written consent of the Corporation. It shall require the Selling Group Member, its affiliates and any Selling Firm to agree in writing, for the benefit of the Corporation, to comply with, and shall use its best efforts to ensure that the Selling Group Member, its affiliates and any Selling Firm complies with, the same provisions of this Schedule “B” as apply to such Agent as if such provisions applied to the U.S. Selling Group Member, its affiliates and any Selling Firm.
3. All offers and sales of Offered Units, Unit Shares and Warrants in the United States or to, or for the account or benefit of, persons in the United States, or U.S. Persons, have been and shall be made only by the U.S. Selling Group Member or a Selling Firm, which is a U.S. broker-dealer registered pursuant to Section 15(b) of the U.S. Exchange Act and under the securities laws of each state in which offers and sales were or will be made (unless exempted from the respective state’s broker-dealer registration requirements) and in good standing with the Financial Industry Regulatory Authority, Inc., in compliance with all applicable U.S. federal and state broker-dealer requirements.
4. Offers of Offered Units, Unit Shares and Warrants in the United States to, or for the account or benefit of, persons in the United States and U.S. Persons have not been made and shall not be made: (i) by any form of “general solicitation” or “general advertising” (as those terms are used in Rule 502(c) of Regulation D), including, without limitation, advertisements, articles, notices or other communications published in any newspaper, magazine or similar media, or on the internet, or broadcast over radio, television or the internet, or any seminar or meeting whose attendees have been invited by general solicitation or general advertising or (ii) or has taken or will take any action that would constitute a public offering of the Offered Units and/or Additional Warrants in the United States within the meaning of Section 4(a)(2) of the U.S. Securities Act.
5. The Agent, acting only through the U.S. Selling Group Member or a Selling Firm, has offered and will offer the Offered Units, the Unit Shares and the Warrants in the United States or to, or for the account or benefit of, persons in the United States and U.S. Persons only to offerees with respect to which the Agent, the U.S. Selling Group Member or the Selling Firm has a pre-existing business relationship and has reasonable grounds to believe and does believe, are Accredited

Investors (and in compliance with Rule 506(b) of Regulation D and applicable state securities laws).

6. Each offeree of Offered Units, Unit Shares or Warrants in the United States, who is a U.S. Person or who is acting for the account or benefit of a person in the United States or a U.S. Person has been or shall be provided with a copy of the final U.S. Memorandum, in the form agreed to by the Corporation and the Agent, including the Prospectus Supplement. Prior to any sale of Offered Units, Unit Shares or Warrants to, or for the account or benefit of, a person in the United States or a U.S. Person or to a person who was offered such securities in the United States, each such purchaser shall be provided with a copy of the final U.S. Memorandum, including the Prospectus Supplement, and no other written material was used in connection with the offer or sale of the Offered Units, the Unit Shares or the Warrants to, or for the account or benefit of, persons in the United States or U.S. Persons.
7. Prior to the completion of any sale by the Corporation of Offered Units and/or Additional Warrants in the United States or to, or for the account or benefit of, persons in the United States or U.S. Persons, (i) each such purchaser thereof will be required to execute a subscription agreement for sales to such U.S. purchasers in the form attached as Exhibit I to the final U.S. Memorandum (the “**U.S. Subscription Agreement**”).
8. Prior to the Closing Date, the Agent will provide the Corporation and the transfer agent of the Corporation with a list of all purchasers of the Offered Units and/or Additional Warrants in the United States, who are U.S. Persons, who are purchasing for the account or benefit of persons in the United States or U.S. Persons or who were offered Offered Units and/or Additional Warrants in the United States. Prior to the Closing Date, the Agent will provide the Corporation with copies of all U.S. Subscription Agreements, duly executed by such purchasers for acceptance by the Corporation.
9. At Closing, each of the Agent, the U.S. Selling Group Member and any applicable Selling Firm that has offered or sold Offered Units, Unit Shares or Warrants to, or for the account or benefit of, persons in the United States or U.S. Persons will provide a certificate, substantially in the form of Exhibit 1 to this Schedule “B”, relating to the manner of the offer and sale of the Offered Units, the Unit Shares and the Warrants to, or for the account or benefit of, persons in the United States and U.S. Persons or the Agent and such persons will be deemed to have represented and warranted that no offers or sales of the Offered Units, the Unit Shares or the Warrants were made to, or for the account or benefit of, persons in the United States or U.S. Persons.
10. None of the Agent, the U.S. Selling Group Member, their respective affiliates or any person acting on any of its or their behalf has taken or will take, directly or indirectly, any action in violation of Regulation M under the U.S. Exchange Act with respect to the offer or sale of the Offered Units, the Unit Shares or the Warrants.
11. As of the Closing Date, with respect to Offered Units, Unit Shares and Warrants to be offered and sold hereunder in reliance on Rule 506(b) of Regulation D (the “**Regulation D Securities**”), the Agent represents that none of (i) the Agent or the U.S. Selling Group Member, (ii) the Agent or the U.S. Selling Group Member’s general partners or managing members, (iii) any of the Agent’s or the U.S. Selling Group Member’s directors, executive officers or other officers participating in the offering of the Regulation D Securities, (iv) any of the Agent’s or the U.S. Selling Group Member’s general partners’ or managing members’ directors, executive officers or other officers participating in the offering of the Regulation D Securities or (v) any other person associated with any of the above persons, including any Selling Firm and any such persons related to such Selling

Firm, that has been or will be paid (directly or indirectly) remuneration for solicitation of purchasers in connection with sale of Regulation D Securities (each, a “**Dealer Covered Person**” and, collectively, the “**Dealer Covered Persons**”), is subject to any of the “Bad Actor” disqualifications described in Rule 506(d)(1) under Regulation D (a “**Disqualification Event**”).

12. As of the Closing Date, the Agent represents that it is not aware of any person (other than any Dealer Covered Person) that has been or will be paid (directly or indirectly) remuneration for solicitation of purchasers in connection with the sale of any Regulation D Securities.

C. Representations, Warranties and Covenants of the Corporation

The Corporation represents, warrants, covenants and agrees that, as of the date hereof and the Closing Date:

1. The Corporation is a “foreign issuer”, within the meaning of Regulation S, and reasonably believes that there is no Substantial U.S. Market Interest in the Offered Units, the Unit Shares, the Warrants, the Warrant Shares or any class of the Corporation’s equity securities.
2. The Corporation is not, and as a result of the sale of the Offered Units, the Unit Shares and the Warrants and the issuance of the Warrant Shares will not be, an “investment company”, as defined in the United States Investment Company Act of 1940, as amended, registered or required to registered under such Act.
3. During the period in which the Offered Units, the Unit Shares and the Warrants are offered for sale, none of it, its affiliates, or any person acting on its or their behalf (other than the Agents, the U.S. Selling Group Member, any of its or their respective affiliates, or any person acting on any of its or their behalf in respect of which no representation, warrant, covenant or agreement is made): (i) has made or will make any Directed Selling Efforts; or (ii) has engaged in or will engage in any form of “general solicitation” or “general advertising” (as those terms are used in Rule 502(c) of Regulation D) with respect to offers or sales of the Offered Units, the Unit Shares or the Warrants to, or for the account or benefit of, persons in the United States or U.S. Persons, including, without limitation, advertisements, articles, notices or other communications published in any newspaper, magazine or similar media or on the internet, or broadcast over radio, television or the internet, or any seminar or meeting whose attendees have been invited by general solicitation or general advertising or has taken or will take any action that would constitute a public offering of the Offered Units and/or Additional Warrants in the United States within the meaning of Section 4(a)(2) of the U.S. Securities Act.
4. The Corporation has not, for a period of six months prior to the commencement of the Offering, sold, offered for sale or solicited any offer to buy any of its securities in a manner that would be integrated with the offer and sale of the Offered Units, the Unit Shares or the Warrants and would cause the exemption from registration set forth in Rule 506(b) of Regulation D to become unavailable with respect to the offer and sale of the Offered Units, the Unit Shares or the Warrants to, or for the account or benefit of, persons in the United States or U.S. Persons.
5. During the period in which the Offered Units, the Unit Shares and the Warrants are offered for sale, none of the Corporation, its affiliates, or any person acting on any of its or their behalf (other than the Agents, the U.S. Selling Group Member, any of its or their respective affiliates or any person acting on its or their behalf, in respect of which no representation, warranty, covenant or agreement is made) has taken or will take any action (i) in violation of Regulation M under the U.S. Exchange Act in connection with the offer or sale of the Offered Units, the Unit Shares or

- the Warrant Shares or (ii) that would cause the exemption afforded by Rule 506(b) of Regulation D to be unavailable for offers and sales of the Offered Units, the Unit Shares or the Warrants in the United States or to, or for the account or benefit of, persons in the United States or U.S. Persons in accordance with the Agreement, or the exclusion from registration afforded by Rule 903 of Regulation S to be unavailable for offers and sales of the Offered Units, the Unit Shares or the Warrants outside the United States to non-U.S. Persons in accordance with the Agreement.
6. Within 15 days of the first sale of the Offered Units, the Unit Shares or the Warrants in the United States to, or for the account or benefit of, persons in the United States or U.S. Persons who are Accredited Investors, the Corporation will file a Form D, Notice of Sale, with the United States Securities and Exchange Commission and any applicable state securities commissions in connection with the offer and sale of such securities.
 7. Neither the Corporation nor any of its predecessors or affiliates has been subject to any order, judgment or decree of any court of competent jurisdiction, temporarily, preliminarily or permanently enjoining such person for failure to comply with Rule 503 of Regulation D.
 8. Except with respect to offers and sales in accordance with this Agreement (including this Schedule "B") to, or for the account or benefit of, persons in the United States or U.S. Persons to Accredited Investors in reliance upon the exemption from registration set forth in Rule 506(b) of Regulation D, none of the Corporation, its affiliates, or any person acting on its or their behalf (other than the Agents, the U.S. Selling Group Member, any of its or their respective affiliates or any person acting on any of its or their behalf, in respect of which no representation, warranty, covenant or agreement is made), has made or will make: (A) any offer to sell, or any solicitation of an offer to buy, any Offered Units, Unit Shares or Warrants in the United States or to, or for the account or benefit of, a person in the United States or a U.S. Person; or (B) any sale of Offered Units, Unit Shares or Warrants unless, at the time the buy order was or will have been originated, the purchaser is (i) outside the United States, not a U.S. Person and not acting for the account or benefit of a person in the United States or a U.S. Person or (ii) the Corporation, its affiliates, and any person acting on their behalf reasonably believes that the purchaser is outside the United States, not a U.S. Person and not acting for the account or benefit of a person in the United States or a U.S. Person.
 9. As of the Closing Date, with respect to the offer and sale of the Regulation D Securities, none of the Corporation, any of its predecessors, any "affiliated" (as such term is defined in Rule 501(b) of Regulation D) issuer, any director, executive officer or other officer of the Corporation participating in the offering of the Regulation D Securities, any beneficial owner of 20% or more of the Corporation's outstanding voting equity securities, calculated on the basis of voting power, or any promoter (as that term is defined in Rule 405 under the U.S. Securities Act) connected with the Corporation in any capacity at the time of sale of the Regulation D Securities (other than any Dealer Covered Person, as to whom no representation is made) is subject to any Disqualification Event.
 10. As of the Closing Date, the Corporation is not aware of any person (other than any Dealer Covered Person) that has been or will be paid (directly or indirectly) remuneration for solicitation of purchasers in connection with the sale of any Regulation D Securities.

EXHIBIT 1

TO SCHEDULE “B”

AGENT’S CERTIFICATE

In connection with the private placement to, or for the account or benefit of, persons in the United States and U.S. Persons of the Offered Units of Titan Medical Inc. (the “**Corporation**”) pursuant to the agency agreement dated September 13, 2016 by and between the Corporation and the Agents (the “**Agreement**”), the undersigned do hereby certify as follows:

1. ● (the “**U.S. Selling Group Member**”) was on the date of each offer and sale of Offered Units, Unit Shares and Warrants in the United States or to, or for the account or benefit of, persons in the United States or U.S. Persons, and is on the date hereof, a duly registered broker-dealer with the United States Securities and Exchange Commission and under the securities laws of each state in which such offers and sales were made (unless exempted from the respective state’s broker-dealer registration requirements) and a member of, and in good standing with, the Financial Industry Regulatory Authority, Inc.
2. All offers and sales of the Offered Units, the Unit Shares and the Warrants in the United States or to, or for the account or benefit of, persons in the United States and U.S. Persons have been conducted by us through the U.S. Selling Group Member and in accordance with the terms of the Agency Agreement (including Schedule “B” thereto) and all applicable U.S. federal and state broker-dealers requirements.
3. Immediately prior to offering Offered Units, the Unit Shares and the Warrants to each prospective purchasers in the United States, who was a U.S. Person or who was acting for the account or benefit of a person in the United States or a U.S. Person (each, a “**U.S. Offeree**”), we had reasonable grounds to believe and did believe that each U.S. Offeree was an Accredited Investor and, on the date hereof, we continue to believe that each U.S. Offeree purchasing the Offered Units and/or Additional Warrants from the Corporation is an Accredited Investor.
4. Each U.S. Offeree of Offered Units, Unit Shares or Warrants was provided with a copy of the final U.S. Memorandum, in the form agreed to by the Corporation and the Agents, including the Prospectus Supplement, and each purchaser of Offered Units, Unit Shares or Warrants who (i) is in the United States, (ii) is a U.S. Person, (iii) is acting for the account or benefit of a person in the United States or a U.S. Person or (iv) was offered Offered Units, Unit Shares or Warrants in the United States, was provided with a copy of the final U.S. Memorandum, including the Prospectus Supplement, and no other written material was used in connection with the offer and sale of the Offered Units, the Unit Shares or the Warrants to, or for the account or benefit of, persons in the United States or U.S. Persons;
5. No form of “general solicitation” or “general advertising” (as those terms are used in Rule 502(c) of Regulation D) was used by us, including, without limitation, advertisements, articles, notices or other communications published in any newspaper, magazine or similar media or on the internet or broadcast over radio, television or the internet, or any seminar or meeting whose attendees had been invited by general solicitation or general advertising, in connection with the offer and sale of the Offered Units, the Unit Shares or the Warrants to, or for the account or benefit of, persons in the United States or U.S. Persons.

6. Prior to any sale of Offered Units, the Unit Shares or Warrants to a U.S. Offeree, we caused each such U.S. Offeree who is an Accredited Investor to execute a U.S. Subscription Agreement substantially in the form of Exhibit I to the U.S. Offering Memorandum.
7. Neither we nor any of our affiliates have taken or will take, directly or indirectly, any action in violation of Regulation M under the U.S. Exchange Act with respect to the offer or sale of the Offered Units, the Unit Shares or the Warrants.
8. None of (i) the undersigned, (ii) the undersigned's general partners or managing members, (iii) any of the undersigned's directors, executive officers or other officers participating in the offering of the Regulation D Securities, (iv) any of the undersigned's general partners' or managing members' directors, executive officers or other officers participating in the offering of the Regulation D Securities or (v) any other person associated with any of the above persons, including any Selling Firm and any such persons related to such Selling Firm, that has been or will be paid (directly or indirectly) remuneration for solicitation of purchasers in connection with sale of Regulation D Securities (each, a **"Dealer Covered Person"** and, collectively, the **"Dealer Covered Persons"**), is subject to any to any of the "Bad Actor" disqualifications described in Rule 506(d)(1) under Regulation D (a **"Disqualification Event"**).
9. The undersigned represents that it is not aware of any person (other than any Dealer Covered Person) that has been or will be paid (directly or indirectly) remuneration for solicitation of purchasers in connection with the sale of any Regulation D Securities.
10. The offering of the Offered Units, the Unit Shares or the Warrants to, or for the account or benefit of, persons in the United States or U.S. Persons has been conducted by us in accordance with the terms of the Agreement, including Schedule "B" thereto.

Capitalized terms used in this certificate have the meanings given to them in the Agreement, including Schedule "B" attached thereto, unless otherwise defined herein.

DATED this _____ day of _____, 2016.

[AGENT]

[U.S. SELLING GROUP MEMBER]

By: _____

By: _____

Name: _____

Name: _____

Title: _____

Title: _____

SCHEDULE "C"

CORPORATION IP

Patents

<u>Region</u>	<u>Application Number</u>	<u>Publication Number</u>	<u>IP Right Number</u>
PCT	PCT/CA2016/000112	-	-
US	62/323032	-	-
PCT	N/A (filed August 23, 2016)	-	-
PCT	PCT/CA2016/000054	-	-
US	13/660328	20130197538	-
US	14/262221	20140230595	-
US	14/261614	20140276956	-
US	14/279828	20140249546	-
EP	20110876682	2785267	-
PCT	PCT/CA2015/000098	-	-
CA	2913943	2913943	-
US	62/265021	-	-
PCT	PCT/CA2015/000600	-	-
EP	20130887243	2996613	-
JP	2016-520200	-	-
US	14/899768	20160143633	-
IN	11772/DELNP/2015	11772/DELNP/2015	-
PCT	PCT/CA2016/000006	-	-
PCT	PCT/CA2016/000007	-	-
US	62/280230	-	-
US	62/280334	-	-
CN	201380078618	105431106	-
PCT	PCT/CA2016/000059	-	-
US	62/319426	-	-
US	15/211295	-	-
PCT	PCT/CA2016/000193	-	-
US	62/308296	-	-
US	62/377080	-	-
US	09/474924	-	6358196
US	12/459292	-	8347754
US	12/583351	-	8332072
US	12/655675	-	8306656
US	12/227582	20100030377	8224485
US	12/449779	20100036393	8792688
US	13/106306	-	9033998
US	13/494852	20120253513	8768509
US	13/660615	20130197697	8930027
EP	20110874984	2773277	2773277
US	14/302723	20140316435	9149339
US	14/831045	20160030122	9421068

SCHEDULE “D”

LICENSOR CONTRACTS

Corporation as Licensor

- Synergist Medical Inc., a predecessor to the Corporation, entered into a patent agreement with Reiza Rayman on May 12, 2008 pursuant to which Synergist Medical Inc. granted to Rayman certain exclusive rights in and to U.S. Patent No. 6,358,196.
- Synergist Medical Inc., a predecessor to the Corporation, entered into a patent agreement with John D. Unsworth on May 1, 2008 pursuant to which Synergist Medical Inc. granted to Unsworth certain exclusive rights in and to U.S. Patents 8,224,485, 8,768,509, 8,792,688, and 9,421,068 and U.S. Patent Application Serial No. 15/211,295.

SCHEDULE "E"

LICENSING AGREEMENTS

Corporation as Licensee

- The Corporation entered into a license agreement with Mayo Foundation for Medical Education and Research effective as of June 27, 2011 pursuant to which the Corporation received certain exclusive rights to intellectual property developed by Heidi Nelson, M.D., and David W. Larson, M.D., Mayo Clinic.
- The Corporation entered into a licence agreement with LiveData Inc. on August 19, 2011 pursuant to which the Corporation received certain limited exclusive rights to integrate certain of LiveData Inc.'s intellectual property into the Corporation's robotic surgical technologies and to market and distribute such integrated technologies to customers.
- The Corporation entered into a licence agreement with Columbia University effective February 3, 2012 pursuant to which the Corporation received certain exclusive rights to intellectual property relating to a robotic surgical technology for use in single-port surgery.
- The Corporation entered into a license agreement with Mayo Foundation for Medical Education and Research effective December 14, 2015, pursuant to which the Corporation received a license to certain patent rights in the field of robotic surgical procedures and systems for colorectal surgery.