

TITAN MEDICAL INC.
MANAGEMENT'S DISCUSSION AND ANALYSIS
FOR THE THREE MONTHS ENDED MARCH 31, 2015
(IN UNITED STATES DOLLARS)

This Management's Discussion and Analysis ("MD&A") is dated May 12, 2015.

This MD&A provides a review of the performance of Titan Medical Inc. ("Titan" or the "Company") and should be read in conjunction with its unaudited condensed interim financial statements for the three months ended March 31, 2015 (and the notes thereto) ("Financial Statements"). The Financial Statements have been prepared in accordance with International Financial Reporting Standards ("IFRS").

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

Additional information in respect of the Company, including the Company's most recent annual information form, can be found under the Company's profile at www.sedar.com.

Internal Control over Financial Reporting

During the three months ended March 31, 2015, no changes were made to the Company's internal control over financial reporting that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

Forward-Looking Statements

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

applications as it progresses in the development of robotic surgical technologies and by licensing suitable technologies; the Company's current plan is to focus on the development and commercialization of the SPORT™ Surgical System at estimated incremental costs and according to the timeline as set forth in the table below; Titan remains on track to attain the next major milestone, completion of prototype units ready for engineering verification, in Q4 2015. Over the course of the next twelve to twenty four months, Titan's objectives include significantly advancing the development of its robotic surgical system including the completion of units ready for engineering verification; the Company has decided to build additional prototypes and develop more advanced instruments and training systems for expanded use for additional surgical procedures; completion of an early human feasibility report; commencement of audit for CE Mark approval and pivotal human clinical trial; completion of pivotal human clinical trial and submission of 510(k) application to FDA; outside U.S. commercial launch; U.S. commercial launch; the Company intends to utilize a direct sales force and/or distribution partner(s) to initiate marketing the SPORT™ Surgical System to hospitals; the Company has not deviated from its plan to use the Net Proceeds towards the ongoing development and commercialization of its SPORT™ Surgical System and general working capital purposes; Titan will continue its pursuit of key strategic relationships, carrying on efforts to secure its intellectual property through the patent and licensing process.

Although the Company believes the expectations expressed in such forward-looking statements are based on reasonable assumptions, such statements are not guarantees of future performance and actual results or developments may differ materially from those in the forward-looking statements. Forward-looking statements are statements about the future and are inherently uncertain, and actual results of the Company or other future events or conditions may differ materially from those reflected in the forward-looking statements due to a variety of risks, uncertainties and other factors, such as current global financial conditions, dependence on key personnel, conflicts of interest, obtaining of or cost of additional financing, strategic alliances, uncertainty as to product development and commercialization milestones, results of operations, competition, technological advancements, rapidly changing markets, uncertain market, uncertain acceptance of the Company's technology or intellectual property, infringement of intellectual property rights, scope and cost of insurance and uninsured risks, risks associated with the Company entering into additional long-term contractual arrangements, ability to license other intellectual property rights, government regulation, changes in government policy, changes in accounting and tax rules, regulatory inquiries, requirements and approvals, contingent liabilities, manufacturing and product defects, limited history of earnings, stock price volatility and the risks and uncertainties discussed under the "Risk Factors" section in our most recent annual information form, which section is expressly incorporated by reference into this MD&A.

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

History and Business

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

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

The Company continues the business of Synergist Medical Inc. (a predecessor of the Company) which commenced business in May 2006. The Company is committed to developing its robotic surgical system for use in connection with minimally invasive surgery (surgery without large incisions). From inception, the Company has focused on research and development toward its robotic surgical technology and building its intellectual property portfolio, trade secrets and scientific and technical knowledge base.

Overall Performance

The Company's business is at the development stage and is focused on the research and development of robotic surgical technologies for application in minimally invasive surgery ("MIS"). The Company is developing the SPORT™ (Single Port Orifice Robotic Technology) Surgical System, a single-incision (also referred to as single-port) robotic surgical system. The SPORT™ Surgical System comprises a surgeon-controlled robotic platform that includes a 3D high definition vision system and interactive multi-articulating instruments for performing MIS procedures, and a surgeon workstation that provides the surgeon with an interface to the robotic platform and also provides a 3D endoscopic view of inside a patient's body cavity during MIS procedures. Development of the SPORT™ Surgical System is proceeding in response to "voice of customer" feedback and in consultation with the Company's outsourced development partners and the Company's Surgeon Advisory Board comprised of industry leading surgeons. The Company aims to pursue a broad set of surgical indications for the SPORT™ Surgical System, including general abdominal, gynecologic and urologic procedures.

The SPORT™ Surgical System is being developed with the goal of inserting the interactive multi-articulating instruments and the 3D high definition vision system into the patient's body cavity through a single incision. The design presently contemplates a collapsible device that, when collapsed, would be capable of being inserted into the patient's body cavity through a skin incision of approximately 25mm. Once inserted, the device is configured to deploy into a working configuration wherein the 3D high definition vision system and interactive multi-articulating instruments can be controlled by a surgeon at the workstation.

The Company has completed research and early development of the major components of the SPORT™ Surgical System including the interactive multi-articulating instruments with multiple degrees of freedom of movement, the custom designed 3D high definition vision system capable of motorized pan and tilt, and surgeon controls of the surgeon workstation that allow the user surgeon to control the instruments through one-to-one movements of the surgeon controls.

In addition to development of robotic surgical technologies, the Company continues to explore in-licensing opportunities for technologies that may be used in conjunction with the Company's surgical system under development. In 2012, the Company entered into an exclusive license agreement with Columbia University for a single-site robotic surgical technology for use in

single incision surgery. The Company has exclusive license rights for the development and commercialization of the licensed technology. This licensed technology has formed the basis of the SPORT™ Surgical System.

The Company continuously evaluates its technologies under development for intellectual property protection through a combination of trade secrets and patent application filings. As of March 31, 2015, the Company had ownership of eight U.S. patents and thirteen patent applications filed in the U.S. or under the Patent Cooperation Treaty (PCT). Additionally, the Company holds exclusive rights to one patent and four patent applications presently pending before patent offices in the U.S., Canada or Europe. The Company anticipates expanding its patent portfolio by filing patent applications as it progresses in the development of robotic surgical technologies and by licensing suitable technologies.

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

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

On March 17, 2015 Titan announced that it completed its first quarter milestone, the design and test of a feasibility prototype. This milestone demonstrates feasibility to build a next generation workstation and advanced instruments and it enables expanded use of the SPORT™ Surgical System.

The Company continues with additional rounds of tissue testing as the development of the surgical system progresses and is working toward the build of prototype units ready for engineering verification.

Selected Annual Information

The following table summarizes selected financial data reported by the Company for the years ended December 31, 2014, 2013 and 2012 in accordance with International Financial Reporting Standards ("IFRS"). The information set forth should be read in conjunction with the respective audited financial statements. All amounts shown are in U.S. dollars which is the company's functional and presentation currency.

| | 2014 | 2013 | 2012 |
|-----------------------------------------|--------------|-------------|-------------|
| Net sales | - | - | - |
| Net and comprehensive loss for the year | \$13,450,261 | \$8,784,993 | \$7,293,361 |
| Basic & diluted loss per share | \$0.14 | \$0.12 | \$0.11 |
| Total long term liabilities | - | - | - |
| Total assets | \$35,389,436 | \$3,207,171 | \$5,379,007 |
| Dividends | - | - | - |

Significant changes in key financial data from 2012 to 2014 can be attributed to the availability of added funding and resulting development of the Company's robotic surgical system.

In 2012, the Company started the transition of its technology development to the SPORT™ Surgical System. This continued development growth was possible as a result of successful financings completed in the last three years.

Effective January 1, 2014, the Company adopted, on a prospective basis, the U.S. dollar as its functional and presentation currency. In accordance with IAS 32, because the exercise prices of the warrants issued February 19, 2014 and April 23, 2014, are not fixed amounts as they are denominated in a currency (Canadian dollar) other than the Company's functional currency (U.S. dollar), these warrants are accounted for as a derivative financial liability. The warrant liability as well as warrants issuable from the exercise of broker warrants, is initially measured at fair value and subsequent changes in fair value are recorded through Net and Comprehensive Loss for the applicable period. The fair value of these warrants is determined initially using a comparable warrant quoted in an active market, adjusted for differences in the terms of the warrants. At March 31, 2015, the warrant liability was adjusted to fair value measured at the market price of the listed warrants.

Discussion of Operations

The Company incurred a net and comprehensive loss of \$9,126,268 during the three months ended March 31, 2015, compared with a net and comprehensive loss of \$3,610,943 for the three months ended March 31, 2014. This increase in net and comprehensive loss for the period is attributed primarily to the increase in ongoing spending related to the continued research and development of the SPORT™ Surgical System. In addition, foreign exchange loss in the quarter was \$1,537,867 compared to \$52,726 for the same period in 2014. The U.S. dollar was considerably stronger against the Canadian dollar at March 31, 2015 compared to March 31, 2014. The majority of the foreign exchange loss occurs when the period end cash balance is converted from Canadian to U.S. dollars. The Company does not currently have a formal foreign exchange hedging policy and its operating results are subject to fluctuations involving the Canadian - U.S dollar exchange rate.

The loss attributed to change in fair value of warrants was \$649,719 at March 31, 2015 compared to a gain of \$1,018,666 at December 31, 2014. The increase in loss of \$1,668,385 reflects an increased warrant liability, based on the fair value of the outstanding warrants at March 31, 2015 compared to December 31, 2014.

During the three months ended March 31, 2015, corporate efforts were ongoing related to furthering key strategic relationships, carrying on efforts to secure the Company's intellectual property through the patent and licensing process, and continuing the development of the Company's robotic surgical system. As of March 31, 2015, the Company has ownership of eight patents issued in the U.S. and thirteen patent applications filed in the U.S. or under the PCT. The Company also has exclusive rights to one patent and four patent applications pending before patent offices in the U.S., Canada or Europe.

Research and development expenditures (all of which were expensed in the period) for the three months ended March 31, 2015 and March 31, 2014, respectively, were as follows:

| Research and Development Expenditures | Three Months March 31, 2015 | Three Months Ended March 31, 2014 |
|----------------------------------------------|----------------------------------------|--------------------------------------------------|
| Intellectual property development | \$79,383 | \$ - |
| License and royalties | 5,001 | 75,054 |
| Product development | <u>6,064,330</u> | <u>1,269,593</u> |
| | 6,148,714 | 1,344,647 |
| SR&ED tax credits received | - | - |
| Total | <u>\$6,148,714</u> | <u>\$1,344,647</u> |

Research and development expenditures increased in the three months ended March 31, 2015 over the same period in 2014. This increase was possible due to equity financings completed in the first and second quarter of 2014 and the efforts by the Company to advance development and related activities of the SPORT™ Surgical System.

Excluding foreign exchange (gain) or loss, general and administrative expenses for the three months ended March 31, 2015, amounted to \$843,344, compared to \$773,039 for the comparable period in 2014.

For the three months ended March 31, 2015, the foreign exchange loss was \$1,793,494 before foreign exchange on warrant liabilities compared to a loss of \$51,561 for the comparable period in 2014. The increase in foreign exchange loss of \$1,741,933 for the three months ended 2015 compared to the same period in 2014 is attributed to the strengthening of the U.S. dollar in 2015 over 2014, the conversion to the U.S. dollar as the company's functional currency and the impact this has had on Canadian dollar balances converted to U.S. dollars at period end. At March 31, 2015 the foreign exchange on the warrant liabilities was a gain of \$255,627.

Titan realized \$53,376 of interest income in the three months ended March 31, 2015 and \$19,790 in the three months ended March 31, 2014. This increase in interest income is due to the higher cash availability following the two financings completed in 2014.

For a discussion with regard to the status of the development of the SPORT™ Surgical System, please see "*Development Objectives*" below.

Summary of Quarterly Results

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

| | Three Months Ended March 31, 2015 | Three Months Ended December 31, 2014 | Three Months Ended September 30, 2014 | Three Months Ended June 30, 2014 | Three Months Ended March 31, 2014 | Three Months Ended December 31, 2013 | Three Months Ended September 30, 2013 | Three Months Ended June 30, 2013 |
|---------------------------------------------------|-----------------------------------|--------------------------------------|---------------------------------------|----------------------------------|-----------------------------------|--------------------------------------|---------------------------------------|----------------------------------|
| Net sales | - | - | - | - | - | - | - | - |
| Net and Comprehensive Loss (gain) from operations | 9,126,268 | (221,995) | \$3,279,621 | \$6,781,692 | \$3,610,943 | \$2,239,299 | \$2,034,967 | \$2,195,271 |
| Basic and diluted loss per share | \$0.09 | (\$0.01) | \$0.03 | \$0.07 | \$0.05 | \$0.03 | \$0.03 | \$0.03 |

Significant changes in key financial data from the three months ended June 30, 2013 to the three months ended March 31, 2015 reflects the transition from the development and evaluation of the surgeon workstation, video system control tower and multi-port patient cart to the commencement of a subsequent development cycle that includes the development of a single-site platform with a prototype for use in ongoing tissue testing. Also included in the three months ended March 31, 2015, is the ongoing impact of changing the functional and presentation currency from Canadian dollars to U.S. dollars and the requirement to revalue the Company's warrant liability at fair value with subsequent changes recorded through comprehensive loss for the period.

Liquidity and Capital Resources

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

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

Titan had \$27,354,587 of cash cash equivalents and short-term investments on hand and accounts payable and accrued liabilities of \$4,801,319, excluding warrant liability at March 31, 2015, compared to \$33,923,182, and \$2,766,315 respectively, at December 31, 2014. Titan's working capital as at March 31, 2015 was \$23,595,672, excluding warrant liability, compared to

\$32,259,475, at December 31, 2014. This decrease in working capital is primarily attributed to the ongoing development of the SPORT™ Surgical System.

Below is a chart which sets out the various series of Titan warrants that were previously issued, using historic rates. The gross proceeds assume all warrants exercise on or before the expiry date.

| Ticker Symbol | Issue Date | Expiry Date | Number Issued | Number Outstanding | Exercise Price (CDN \$) | Potential Proceeds (CDN \$) |
|----------------------|-------------------|--------------------|----------------------|---------------------------|--------------------------------|------------------------------------|
| TMD.WT | December 10, 2010 | December 10, 2015 | 5,000,000 | 3,665,900 | \$1.85 | 6,781,915 |
| TMD.WT.A | June 21, 2011 | June 21, 2016 | 5,577,500 | 5,121,500 | \$2.00 | 10,243,000 |
| 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 | 5,300,705 | \$1.25 | 6,625,881 |
| 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 |
| TOTAL | | | 45,050,707 | 38,628,104 | | 81,029,987 |

Note:

(1) There is no assurance that any warrants will be exercised at any time before they expire.

Development Objectives

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

The Company's current plan is to focus on the development and commercialization of the SPORT™ Surgical System according to the timeline as set forth in the table below. As of March 31, 2015, the Company has completed the design and test of a feasibility prototype of the SPORT™ Surgical System.

Based on "voice of customer" feedback, further consultations with the Company's development partners and the Company's Surgeon Advisory Board, the Company has decided to build additional prototypes and develop more advanced instruments and training systems for expanded use for additional surgical procedures. The Company is now pursuing a broader set of surgical indications including general abdominal, gynecologic and urologic procedures for the SPORT™ Surgical System.

| <i>Development Milestone</i> | <i>Estimated Cost (in U.S. \$)</i> | <i>Schedule for Milestone Completion</i> | <i>Comments</i> |
|--------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|--------------------------------------------------|------------------------------------------------------------------------------------------|
| Alpha commercial prototype design complete (Design of prototype suitable for ongoing tissue testing) | - | Q1 2014 | <i>Completed</i> |
| Alpha commercial prototype built | - | Q2 2014 | <i>Completed</i> |
| Tissue testing (Testing performance of individual features and functionality) | - | Q2 2014 | <i>Completed</i> |
| Design and test of feasibility prototype complete (Demonstrate feasibility for next generation console and advanced instruments) | | Q1 2015 | <i>Completed</i> |
| Units built and ready for engineering verification (Prototype is formally tested to meet previously defined specifications) | \$17 million | Q4 2015 <i>Expected</i> | Prototype units enable validation of expanded use |
| Early human feasibility report complete (Human clinical cases utilizing units are tested under engineering verification) | \$10 million (2 milestones) | Q2 2016 <i>Expected</i> | First “in human” studies confirm capabilities of SPORT™ Surgical System for expanded use |
| Audit for CE Mark approval commenced | | Q2 2016 <i>Expected</i> | |
| Pivotal Human clinical trial commenced | \$3 million | Q3 2016 <i>Expected</i> | |
| Pivotal Human clinical trial completed and 510(k) application submitted to FDA | \$3 million (3 milestones) | Q4 2016 <i>Expected</i> | |
| Outside U.S. commercial launch (Pending CE Mark approval) | | Q4 2016 <i>Expected</i> | |
| U.S. commercial launch (Pending 510(k) market clearance) | | Mid-2017 <i>Expected</i> | |
| TOTAL | \$33 million | | |

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

Due to the nature of technology research and development, there is no assurance that these objectives will be achieved, and there can be no assurance with respect to the time or resources that may be required. The Company expects that additional specific milestones could be identified as the development of its SPORT™ Surgical System progresses. The total costs and time required to complete the development of the Company's SPORT™ Surgical System as referenced above are only an estimate based on current information available to the Company and cannot yet be determined with a high degree of certainty, and the costs and time required may be substantially greater than estimated.

Please also refer to the risk factors set forth starting on page 9 of the Company's Annual Information Form for the 2014 fiscal year, available on SEDAR at www.sedar.com.

Financings

On February 19, 2014 Titan completed an offering of securities pursuant to an agency agreement dated February 10, 2014 between the Company and Dundee Securities Ltd. ("the Agent"). The offering consisted of 7,950,000 units and full over-allotment of 1,192,500 units for a total of 9,142,500 units at a price of CDN\$1.40 per unit for aggregate gross proceeds of \$11,588,667 (\$10,608,580 net of closing costs including 6% cash commission of \$675,242 paid in accordance with the terms of the agency agreement). Each unit comprised one common share of Titan and one warrant. Each warrant entitles its holder to purchase one additional common share of Titan for CDN\$2.00 and will expire February 19, 2017. The warrants were valued at \$1,407,195 using a comparable warrant quoted in an active market, adjusted for differences in the terms of the warrant and the balance of \$10,181,472 was allocated to common shares.

Pursuant to the agency agreement, in addition to the cash commission paid to the Agent, broker warrants were issued to purchase 532,710 units. Each broker warrant entitles the holder thereof to acquire one unit of the Company at the price of CDN\$1.40 for a period of 24 months following the closing date. Each unit consists of one common share and one warrant. Each warrant entitles the holder to acquire one common share of the Company at an exercise price of CDN\$2.00 for a period of 36 months from the date of closing.

On April 23, 2014 Titan completed an offering of securities pursuant to an agency agreement dated April 10, 2014 between the Company and Dundee Securities Ltd. ("Agent"). The offering consisted of 10,611,469 units and full over-allotment of 1,591,720 units for a total of 12,203,189 units at a price of CDN\$2.10 per unit for aggregate gross proceeds of \$23,232,936, (\$21,606,685 net of closing costs including 6% cash commission of \$1,362,426 paid in accordance with the terms of the agency agreement). Each unit comprised one common share of Titan and one warrant. Each warrant entitles its holder to purchase one additional common share of Titan for CDN\$2.75 and will expire April 23, 2017. The warrants were valued at \$3,539,901 and the balance of \$19,693,035 was allocated to common shares.

Pursuant to the agency agreement, in addition to the cash commission paid to the Agent, broker warrants were issued to purchase 699,191 units. Each broker warrant entitles the holder thereof to acquire one unit of the Company at the price of CDN\$2.10 per unit for a period of 24 months following the closing date. Each unit consists of one common share and one warrant. Each warrant entitles the holder to acquire one common share of the Company at an exercise price of CDN\$2.75 for a period of 36 months from the date of closing.

The utilization of proceeds as outlined in the prospectus supplements dated February 10, 2014 and April 10, 2014, respectively, to the short form base shelf prospectus of the Company dated October 15, 2012 has been updated as outlined in the following table:

| | Proceeds from the Maximum Offering as outlined in the prospectus supplement dated February 10, 2014 (Including the 15% overallotment) | Proceeds from the Maximum Offering as outlined in the prospectus supplement dated April 10, 2014 (Including the 15% overallotment) | TOTAL |
|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|
| Ongoing development and commercialization of the SPORT™ Surgical System | \$8,486,864 | \$17,285,348 | \$25,772,212 |
| General working capital requirements | <u>2,121,716</u> | <u>4,321,337</u> | <u>6,443,053</u> |
| Total Net Proceeds | <u>\$10,608,580</u> | <u>\$21,606,685</u> | <u>\$32,215,265</u> |

The Company has not deviated from its plan to use the net proceeds of the offerings described in the table above towards the ongoing development and commercialization of its SPORT™ Surgical System and general working capital purposes.

Off-Balance Sheet Arrangements

Other than for leased premises occupied by the Company, and licensing agreements both of which are discussed in note 8 of the unaudited condensed interim financial statements for the three months ended March 31, 2015 and 2014, the Company does not utilize off balance sheet arrangements.

Outstanding Share Data

The following table summarizes the outstanding share capital as of the date of this Management's Discussion and Analysis:

| Type of Securities | Number of common shares issued or issuable upon conversion |
|--------------------------------|-------------------------------------------------------------------|
| Common shares | 102,576,613 |
| Stock options ⁽¹⁾ | 2,224,604 |
| Warrants | 38,628,104 |
| Broker warrants ⁽²⁾ | 679,765 |

Notes:

- (1) The Company has outstanding options enabling certain employees, directors, officers and consultants to purchase common shares. Please refer to note 5(b) of the Unaudited Condensed Interim Financial Statements for terms of such options.
- (2) Pursuant to the agency agreement in respect of the February 19, 2014 offering, in addition to the cash commission paid to the Agents, broker warrants were issued to purchase 532,710 units. Each broker warrant entitles the holder thereof to acquire one unit of the Company at the price of CDN\$1.40 for a period of 24 months following the closing date. Each unit consists of one common share and one warrant. Each warrant entitles the holder to acquire one common share of the Company at an exercise price of CDN\$2.00 per share for a period of 36 months from the date of closing.

Pursuant to the agency agreement in respect of the April 23, 2014 offering, in addition to the cash commission paid to the Agents, broker warrants were issued to purchase 699,191 units. Each broker warrant entitles the holder thereof to acquire one unit of the Company at the price of CDN\$2.10 for a period of 24 months following the closing date. Each unit consists of one common share and one warrant. Each warrant entitles the holder to acquire one common share of the Company at an exercise price of CDN\$2.75 per share for a period of 36 months from the date of closing.

A total of 532,710 and 699,191 broker warrants were issued relating to the February 19, 2014 and April 23, 2014 offerings respectively and as of the date of this report, 124,299 and 555,466 of these broker warrants remain outstanding.

Changes in Functional and Presentation Currency

Effective January 1, 2014, the Company adopted, on a prospective basis, the U.S. dollar as its functional and presentation currency. In accordance with IAS 32, because the exercise price of the warrants issued February 19, 2014 and April 23, 2014, as well as warrants issued from the exercise of broker warrants, are not a fixed amount as they are denominated in a currency (Canadian dollar) other than the Company's functional currency (U.S. dollar), the warrants are accounted for as a derivative financial liability. The warrant liability is initially measured at fair value using a comparable warrant quoted in an active market, adjusted for differences in the terms of the warrant and subsequent changes in fair value, using the market price of warrants, are recorded through net and comprehensive loss for the period.

Accounting Policies

The accounting policies set out in the notes to the unaudited condensed interim financial statements have been applied in preparing the unaudited condensed interim financial statements for the three months ended March 31, 2015, and the comparative information presented in the unaudited condensed interim financial statements for the three months ended March 31, 2014.

The preparation of financial statements in conformity with IFRS requires management to make estimates and assumptions that affect the reported amount of assets and liabilities and disclosure of provisions at the date of the financial statements and the reported amount of expenses during

the period. Financial statement items subject to significant judgement include the valuation of patent rights, the measurement of stock based compensation and warrants. While management believes that the estimates and assumptions are reasonable, actual results may differ.

Fair Value

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

Related Party Transactions

During the three months ended March 31, 2015, transactions between the Company and directors, officers and other related parties were related to compensation matters in the normal course of operations and are measured at the exchange amount, which is the amount of consideration established and agreed to by the related parties.

During the second quarter of 2014, the Company retained an individual related to a senior executive to provide consulting services in support of marketing efforts for the European market. Compensation included the grant of stock options valued at \$25,000, monthly consulting fees of U.S. \$6,500 plus appropriate expenses. During the third quarter the monthly consulting fee was increased to U.S. \$12,000 plus appropriate expenses.

Financial Instruments

The Company has designated its cash, cash equivalents and short-term investments and amounts receivable as loans and receivables, which are measured at amortized cost. Amounts receivable include HST recoverable and accrued interest. Accounts payable and accrued liabilities are classified as other financial liabilities, which are measured at amortized cost, except for warrant liability which is valued at fair value.

Management Compensation

In the three months ended March 31, 2015, the compensation set out below was earned by directors and officers in connection with them providing services as directors and officers of Titan. No other compensation arrangements were made with any director or officer of Titan during the first quarter of 2015.

Officers

| Name | Title | Salary | Stock Options | Total |
|------------------------------|-----------------------------------------------|----------|---------------|----------|
| Reiza Rayman | President | \$47,360 | - | \$47,360 |
| John Hargrove | Chairman and CEO | \$50,000 | - | \$50,000 |
| Stephen Randall | CFO and Secretary | \$37,984 | - | \$37,984 |
| Dennis Fowler ⁽¹⁾ | Executive VP, Clinical and Regulatory Affairs | \$43,750 | - | \$43,750 |

Notes:

(1) Dr. Dennis Fowler was appointed Executive Vice President, Clinical and Regulatory Affairs effective September 1, 2014.

Directors

Independent directors of the Company are provided compensation in the form of an annual retainer, (Cdn. \$10,000) paid in advance, meeting fees (Cdn. \$1,000 per meeting) paid in arrears and an additional retainer for chairing committees, (Cdn. \$2,500), paid in advance. All compensation is paid by way of stock option grants.

The following table sets out the compensation earned by each of the independent directors in the first quarter of 2015. All compensation to directors is paid through the issuance of stock options, or cash, at the discretion of the directors, on an annual basis. Currently all directors compensation is paid through stock options.

| Name | Annual Retainer | Committee Chair | Meeting Fees | Stock Options Granted | Total Compensation (\$) |
|---------------------------------|-----------------|-----------------|--------------|-----------------------|-------------------------|
| J.E. Barker ⁽¹⁾ | \$- | \$499 | \$2,388 | \$- | \$2,887 |
| Martin Bernholtz ⁽²⁾ | \$- | \$499 | \$2,388 | \$- | \$2,887 |
| Dr. Bruce Wolff | \$- | N/A | \$2,388 | \$- | \$2,388 |

Notes:

(1) Chairman of the compensation committee effective March 6, 2014

(2) Chairman of the audit committee.

Outlook

Titan continues to focus its efforts on the development of the SPORT™ Surgical System and is continuing its move towards commercialization. On April 16, 2015, the Company announced that effective March 31, 2015 it has signed an agreement with a worldwide supplier of endomechanical devices for the development and supply of single patient use robotic tools. Under the terms of the agreement, the supplier will create customized single patient use tools for Titan's SPORT™ Surgical System. On May 5, 2015, the Company announced that it has signed an agreement with the James and Sylvia Earl, Simulation to Advance Innovation and Learning (SAIL) Center at Anne Arundel Medical Center (AAMC) in Annapolis, MD, for the development of a comprehensive curriculum for training and performance assessment of surgeons and surgical teams using the SPORT™ Surgical System.

On a regular basis, Titan undertakes a detailed analysis and reasonableness review of its development milestones and related cost estimates.

Over the course of the next twelve months, Titan's objectives include significantly advancing the development of its robotic surgical system including completion of prototype units ready for engineering verification. In addition, Titan will undertake human clinical cases utilizing the prototype units completed for engineering verification, and the audit for obtaining CE Mark approval will have commenced.

Titan will continue its pursuit of key strategic relationships, carrying on efforts to secure its intellectual property through the patent and licensing process.

Additional Information

Additional information relating to Titan, including Titan's Annual Information Form for the 2014 fiscal year, is available on SEDAR at www.sedar.com.