**TITAN MEDICAL INC.**

**MANAGEMENT'S DISCUSSION AND ANALYSIS**

**FOR THE YEAR ENDED DECEMBER 31, 2019**

**(IN UNITED STATES DOLLARS)**

This Management's Discussion and Analysis ("MD&A") is dated March 30, 2020.

This MD&A provides a review of the performance of Titan Medical Inc. ("Titan" or the "Company") and should be read in conjunction with its audited financial statements for the year ended December 31, 2019 (and the notes thereto) (the "Financial Statements"). The Financial Statements have been prepared in accordance with International Financial Reporting Standards, ("IFRS"). All financial figures are in United States Dollars ("US $") except where otherwise noted.

***Internal Control over Financial Reporting***

During the year ended December 31, 2019, 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", "projects", "projection", "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 may appear in this MD&A include:

- the Company's ability to raise sufficient financing on a timely basis, secure and restore relationships with its suppliers and development partners and retain qualified personnel;
- the Company's business plan consists of the development of computer-assisted robotic surgical technologies for application in MIS comprising its single-port robotic surgical system;
- the Company is planning continued development of a robust training curriculum and post-training assessment tools for surgeons and surgical teams;
- the proposed training curriculum is planned to include cognitive pre-training, psychomotor skills training, surgery simulations, live animal and human cadaver lab training, surgical team training, troubleshooting and an overview of safety;
- post-training assessment will include validation of the effectiveness of those assessment tools;

- the Company's intent to initially pursue gynecologic surgical indications for use of its single-port robotic surgical system;
- the single-port robotic surgical system patient cart is being developed to deliver multi-articulating instruments and 3D high definition vision system into the patient's body cavity through a single access port;
- the Company's technology and research and development objectives and milestones, including any estimated costs, schedules for completion and probability of success and including without limitation the table set forth herein under the heading, "Current Development Plan" and the footnotes thereunder;
- the Company's intention with respect to updating any forward-looking statement after the date on which such statement is made or to reflect the occurrence of unanticipated events;
- the Company's expectation with respect to submitting its Investigational Device Exemption ("IDE") application to the U.S. Food and Drug Administration ("FDA") in a timely manner;
- the Company's expectation that it can, in a timely manner, produce the appropriate preclinical and clinical data required for a 510(k) application to the FDA, and Technical File for the CE mark;
- assuming the Company obtains regulatory clearances, the Company's expectation with respect to launching a commercial product in certain jurisdictions;
- the Company's plans to develop its single-port robotic surgical system and the estimated incremental costs (including the status, cost and timing of achieving the development and regulatory milestones disclosed herein);
- the Company's plans to design, create and refine software for production system functionality of the single-port robotic surgical system and the estimated incremental costs (including the status, cost and timing of achieving the development milestones disclosed herein);
- assuming the Company obtains regulatory clearances, the Company's intentions with respect to initiating marketing activities;
- the Company's intention to continue to assess specialized skill and knowledge requirements and recruitment of qualified personnel and partners;
- the Company's intended use of proceeds of any offering of securities;
- the Company's continuing efforts to secure its intellectual property by filing patent applications;
- the Company's expectations with respect to its relationship with its Primary Supplier (as defined herein), including its ability to comply with the terms of the October 3, 2019 letter agreement between the Company and the Primary Supplier;
- the future success of the Company is substantially dependent on funding its research and development program and maintaining the support of its research and development and manufacturing service providers and, in some cases, securing new suppliers and service providers;

- the mandate of the special committee of the Company's board of directors includes a wide range of potential transactions, including financing through equity or debt, licensing, merger or acquisition and to oversee the global search for strategic alternative transactions to maximize shareholder value;
- should the Company be successful in raising sufficient capital, which it may not be, the Company plans to complete paying valid past due invoices and then develop a work plan with input from suppliers that is consistent with the Company's priorities toward milestone achievement having regard to the Company's available capital resources;
- as the Company's Primary Supplier has agreed to waive certain deposit requirements, the Company plans to comply with the specified interim requirements of the supplier until the Company has raised sufficient capital to fund the deposit as described above;
- the Company's expectations with respect to the outcome of its dispute with the Service Provider (as defined herein);
- in any case in which the Company may be unable to normalize supplier relationships, it has identified alternative suppliers of those services;
- the Company will need to replace any product development service provider in the event it should be necessary or desirable to the Company;
- the performance of human surgeries with the single-port robotic surgical system will require an IDE from the FDA, which must be submitted and approved in advance;
- the recruitment of surgeons from multiple hospital sites will be necessary to perform the surgeries. Each of these sites will require approval of their independent Institutional Review Board to approve the studies;
- previous results achieved by surgeons in operating prototypes in animal and cadaver studies have validated the potential for single incision surgeries to be performed with the Company's single-port robotic surgical system;
- insights gained from these preclinical studies have directed the Company to make further product improvements; and
- the Company entered into a second Common Share Purchase Agreement with Aspire Capital Fund, LLC under which Aspire Capital committed to purchase up to US $35.0 million of common shares of Titan at the Company's request from time to time.

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 access to sufficient capital on a timely basis, reliance on third party suppliers, commercial disputes with third party suppliers, current global financial conditions, dependence on key personnel, conflicts of interest, dependency on additional financing, the Company's history of losses, reliance on strategic alliances, the ability to retain key personnel in a highly-competitive employment environment, the possibility of the Company's inability to augment its management team when required,

the possibility that the Company's trade secrets and confidential information may be compromised, reliance on third parties for important aspects of the Company's business, uncertainty as to product development and commercialization milestones, results of operations, competition, technological advancements, rapidly changing markets, uncertain market for the Company's products and technology, uncertainty as to the enforceability of the Company's intellectual property, infringement of intellectual property rights of others, scope and cost of insurance and uninsured risks, risks associated with the Company entering into additional long-term contractual arrangements, ability to license other intellectual property rights, government regulation, changes in market conditions and demands and preferences, changes in government policy, exposure to product liability claims, changes in accounting and tax rules, regulatory inquiries, requirements and approvals, contingent liabilities, manufacturing and product defects, stock price volatility, fluctuating financial results and currency fluctuations, uncertainty as to the Company's ability to meet its development and commercialization milestones, uncertainties as to development and manufacturing of a commercially viable product, reliance on external suppliers and development firms, fluctuations in the market prices of the Company's securities, possible future sales by the Company's shareholders of their securities, limited operating history of the Company, the development stage of the Company and its lack of revenue or earnings, fluctuations of the Company's financial results, the possibility that the Company is not able to maintain its "foreign private issuer" status, the possibility of delisting from the Nasdaq or TSX exchanges, the negative impact of COVID-19 on the ability of suppliers of goods and services to provide resources in a timely manner to support the Company's milestones, the negative impact of COVID-19 on present and future demand for robotic surgeries, equipment and supplies, and the negative impact of COVID-19 on the ability of the Company to obtain regulatory approvals as required on a timely basis to accomplish its milestones and objectives.

Please also refer to the risk factors set forth starting on page 17 of the Company's Annual Information Form for the 2018 fiscal year, available on SEDAR at www.sedar.com, which are 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 the successor corporation formed pursuant to two separate amalgamations under the *Business Corporations Act* (Ontario) on July 28, 2008. Titan does not have any subsidiaries.

The address of the Company's corporate office and its principal place of business is 155 University Avenue, Suite 750, Toronto, Ontario, Canada M5H 3B7.

***Overall Performance***

During the year ended December 31, 2019, the Company was unsuccessful in securing sufficient capital to maintain product development and regulatory activities at a pace that would allow accomplishment of its previously stated milestones. As a result, on October 15, 2019, the Company announced that it had withdrawn all forward-looking statements included in its continuous disclosure documents with respect to the cost and timing of the development of its robotic surgical system beyond the fourth quarter of 2019. On November 7, 2019, the Company announced that it had determined not to proceed with the public offering of units of the Company for which it filed a final short form prospectus on October 31, 2019 (the "October Offering"). The Company does not have sufficient capital to continue the development of its robotic surgical system and there can be no assurance that the Company will be successful in securing additional financing. All statements in this MD&A as to the plans and objectives of the Company with regard to resuming and continuing its development are conditional upon, among other things, the Company raising sufficient financing on a timely basis, securing and restoring relationships with its suppliers and development partners and retaining qualified personnel.

During the year ended December 31, 2019, the Company raised gross proceeds of approximately $34,054,530 ($31,181,983 net of closing costs including cash commission of $2,172,500). See the section below on Financings for more details. For the year ended December 31, 2019, the Company generated a net and comprehensive losses of $41,907,079 (December 31, 2018 - $22,639,272) which included research and development expenditures of $51,418,056 (December 31, 2018 - $32,858,339) and a gain on change in fair value of warrants of $19,800,645 (December 31, 2018 - $17,095,220).

The Company's business plan consists of the development of computer-assisted robotic surgical technologies for application in minimally invasive surgery ("MIS") comprising its single-port robotic surgical system. The system under development includes a surgeon-controlled patient cart that includes a 3D high definition vision system and multi-articulating instruments for performing MIS procedures, and a surgeon workstation that provides the surgeon with an advanced ergonomic interface to the patient cart and a 3D endoscopic view inside the patient's body during MIS procedures. The Company intends to initially pursue gynecologic surgical indications for use of its single-port robotic surgical system.

Development of the single-port robotic surgical system had proceeded with input from surgeons and operating room staff experienced in MIS, consultation with medical technology development firms and input from the Company's Surgeon Advisory Board (the "Surgeon Advisory Board") comprised of surgeons who specialize in MIS. This approach allowed the Company to design a robotic surgical system intended to include the traditional advantages of robotic surgery, including 3D stereoscopic imaging and restoration of instinctive control, as well as new and enhanced features, including an advanced surgeon workstation incorporating a 3D high definition display providing a more ergonomically friendly user interface and a patient cart with enhanced instrument dexterity.

The single-port robotic surgical system patient cart was being developed to deliver multi-articulating instruments and a dual-view camera system into a patient's abdominal body cavity through a single access port. The dual-view camera system consists of a flexible 3D high-definition endoscopic camera along with a light source and a camera insertion tube of approximately 25

millimeter diameter that includes an integrated 2D high-definition camera along with an independent light source that once inserted, provides visualization for optimal positioning of the camera insertion tube by a bedside assistant under the guidance of the surgeon. Once the camera insertion tube is inserted and positioned in the body, it is docked to the central unit of the patient cart and the 3D high-definition endoscopic camera is deployed in a manner that the endoscopic camera and multi-articulating instruments can be controlled by the surgeon via the workstation. The reusable multi-articulating, snake-like instruments are designed to couple with an assortment of permanent and detachable single patient use end effectors that in the case of the latter, provide first use quality in every case and eliminate the reprocessing of the complete instrument. The use of reusable (for a specific number of uses) robotic instruments that can be cleaned and sterilized between surgeries, and single patient use end effectors is intended to minimize the cost per procedure without compromising surgical performance. The patient cart is also designed to include a mast, a boom and wheels for optimal configurability for a variety of surgical indications and the ability to be maneuvered within the operating room, or redeployed within hospitals and ambulatory surgical centers, where applicable.

As part of the development of its single-port robotic surgical system, the Company is planning continued development of a robust training curriculum and post-training assessment tools for surgeons and surgical teams. The proposed training curriculum is planned to include cognitive pre-training, psychomotor skills training, surgery simulations, live animal and human cadaver lab training, surgical team training, troubleshooting and an overview of safety. Post-training assessment will include validation of the effectiveness of those assessment tools. The Company has developed 14 core surgical skills simulation modules for use with the surgeon workstation in the first phase of the comprehensive surgeon training curriculum that the Company is planning for its single-port robotic surgical system.

The Company has continuously evaluated its technologies under development for intellectual property protection through a combination of trade secrets and patent application filings. The Company has continued the filing and prosecution of patents that management believes will validate the novelty of its unique technology. Early evidence of success with this initiative has been the rapid growth of its patent portfolio from 12 issued patents at December 31, 2016 to 46 issued patents as of December 31, 2019. As of March 30, 2020, the Company has 85 patent applications and 50 patents.

As part of its development efforts, the Company has established certain milestones related to technology and design advancements as well as preclinical and clinical studies and completion of regulatory submissions. To assess progress, the Company regularly tests and evaluates its technology. If such evaluations indicate technical defects or failure to meet cost or performance goals, the Company's development schedule could be further delayed.

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

During the year ended December 31, 2018, the Company achieved all of its milestones as published in the Company's Annual Information Form for the 2018 fiscal year. The Company then proceeded to initiate preclinical acute and chronic (survival) live animal and human cadaver procedures according to Good Laboratory Practices ("GLP") during the second quarter of 2019. However, human factors evaluation ("HFE") studies that were previously planned for the second quarter of 2019 were moved to the third quarter in order to accommodate initiation of the GLP procedures, which from a timing perspective were a priority. The GLP procedures, as well as the HFE studies, were completed during the third quarter of 2019.

During the fourth quarter ended December 31, 2019, the Company completed two of its three fourth quarter milestones including: (i) receipt of a final independent report from validation testing of system safety and usability for the intended users and use environments under simulated robotic manipulation exercises intended to replicate essential surgical tasks; and (ii) complete User Manual for robotic system setup by operating room staff and surgeon operation of the surgeon workstation, patient cart, instruments and accessories. The third milestone, receipt of ISO 13485 Certification, was expected to be received by year-end 2019, but was delayed in processing and received January 24, 2020.

The future success of the Company is substantially dependent on funding its research and development program and maintaining the support of its research and development and manufacturing service providers and, in some cases, securing new suppliers and service providers.

As of the date of this MD&A, the Company's primary product development supplier (the "Primary Supplier") has stopped all work with regard to the development of the Company's robotic surgical system. Additionally, the Company's relationship with another service provider, Naglreiter Consulting, LLC ("Naglreiter") has deteriorated, resulting in litigation between Naglreiter and the Company. For more information, please see the section "Discussion of Operations", below.

Following the above noted adverse events during second half of 2019, the Company's Board of Directors established a special committee of independent directors to oversee the global search for strategic alternative transactions. The mandate of the special committee includes a wide range of potential transactions, including financing through equity or debt, licensing, merger or acquisition. There can be no assurance that the Company will be successful in securing additional capital or completing a suitable strategic alternative transaction. In the event that the Company is unable to secure additional capital or conclude a suitable strategic alternative transaction, it may be unable to pay down past due invoices or restart product development. It is also possible that in such circumstances the Company's relationships with key service providers may further deteriorate.

**Selected Annual Information**

The following table summarizes selected financial data reported by the Company for the years ended December 31, 2019, 2018 and 2017 in accordance with IFRS. The information set forth should be read in conjunction with the respective audited financial statements.

| | 2019 | 2018 | 2017 |
|---|---|---|---|
| Net Sales | - | - | - |
| Net and comprehensive loss for the year | $41,907,079 | $22,639,272 | $33,586,984 |
| Basic & diluted loss per share | $1.37 | $1.36 | $4.25 |
| Total long-term liabilities | ($8,001) | - | - |
| Total Assets | $3,381,581 | $21,915,164 | $29,674,610 |
| Dividends | - | - | - |

Significant changes in key financial data from 2017 to 2019 can be attributed to the availability of equity financing, the fluctuations of the fair value of warrants and expenditures in connection with the development of the Company's robotic surgical system.

***Discussion of Operations***

The Company incurred a net and comprehensive loss of $41,907,079 during the year ended December 31, 2019, compared to a net and comprehensive loss in 2018 of $22,639,272. The increase in the loss in 2019 of $19,267,807 is primarily due to an increase of $18,559,717 in research and development expenditures in 2019. Research and development expenditures for the year ended December 31, 2019 were $51,418,056, compared with $32,858,339 for the year ended December 31, 2018.

Total expenses incurred during the year ended December 31, 2019 were $59,726,277. At December 31, 2018, the Company had forecasted total expenses for 2019 to be approximately $64,100,000. The difference between the original forecast and actual expenses incurred is primarily related to reduced research and development costs as a result of a decline in available funding. The reduction in costs was approximately $4,500,000, or 7.0% of total expenses forecasted as of December 31, 2018.

During the first half of 2019, the Company continued to support product development and manufacturing relationships with subcontractors, carried on efforts to globally secure the Company's intellectual property through the patent and licensing process, and continued the development of the Company's single-port robotic surgical system. However, as the Company experienced severe financing challenges during the second half of the year, product development was suspended.

Research and development expenditures (all of which were expensed in the period), for the years ended December 31, 2019 and December 31, 2018, respectively were as follows:

| **Research and Development Expenditures** | **Year Ended December 31, 2019** | **Year Ended December 31, 2018** |
|---|---|---|
| Intellectual property development | $ 7,321 | $ 14,540 |
| Product development | 51,410,735 | 32,843,799 |
| **Total** | **$ 51,418,056** | **$ 32,858,339** |

Research and development expenditures increased considerably in the year ended December 31, 2019 compared to the same period in 2018. This increase was primarily due to an increase in available funding in the first quarter of 2019 that allowed the Company to accelerate product development in the first half of 2019, compared to 2018.

Other expenses, excluding the research and development expenses discussed above and excluding Interest income, Gain on change in fair value of warrants and Warrant liability issue costs as disclosed in the Company's financial statements for the year ended December 31, 2019 were $8,308,221, compared to $5,852,109 in 2018. The increase of $2,456,112 is primarily attributable to higher professional fees expensed in 2019 relating to the withdrawn October Offering that would otherwise have been accounted for as equity and offset with proceeds of the financing, consulting fees, stock-based compensation, and accrued interest to a supplier, partially offset by lower management salaries and fees.

The Company realized $115,584 of interest income on its cash and cash-equivalent balances during the year ended December 31, 2019, and $288,300 for the same periods in 2018. This decrease in interest income is primarily attributed to lower cash balances in its money market account in 2019 compared to 2018.

The impact of the change in fair value of warrants for the year ended December 31, 2019 was a gain of $19,800,645, compared to a gain of $17,095,220 in 2018. The difference of $2,705,425 for the year ended December 31, 2019 reflects both an increase in the number and decrease in the fair value of warrants in 2019 compared to 2018.

Warrant liability issue costs increased to $2,097,031 for the year ended December 31, 2019 from $1,312,344 for the same period in 2018. This increase includes an increase in the funds raised and corresponding costs in March 2019 compared to the funds raised and corresponding costs for the year ended December 31, 2018. In addition, included in the 2019 warrant liability costs is an adjustment of $269,196 relating to the years ended December 31, 2016 and 2017.

Due to a shortfall in capital, on October 3, 2019, the Company and its Primary Supplier entered into a letter agreement providing that until the Company has secured sufficient financing, the requirement that the Company maintain a deposit under an existing agreement with the supplier would be waived. Instead, the Company would pre-pay for development work in advance of each month during which product development services are to be provided. Consequently, $2.0 million which had been paid to the supplier and held as a deposit under the original contract was applied toward the Company's payables for past services rendered by the supplier. Once the Company has sufficient cash on hand to fund a deposit equal to three months of projected invoices from the

supplier, the Company will then be required to maintain a deposit in that amount. Thereafter, once the Company has made full on time payment of all invoices for a six-month period, the deposit terms will revert to the terms of the existing original agreement.

The Company and its Primary Supplier are in regular communication regarding the Company's capital resources. In the circumstances of the reduction of capital available to the Company to pay the supplier and in particular, the Company not completing the October Offering, the supplier has stopped all development work that the supplier performs for the Company and it has reassigned all of its employees that were previously dedicated to the Company's project to unrelated work. This will significantly impact the timing and costs associated with the completion of the Company's future milestones as additional time and cost will be incurred to rehire and/or reassign employees and resume product development.

Recently, the Company's relationship with Naglreiter, another service provider to the Company, has deteriorated, resulting in on-going litigation between Naglreiter and the Company. Naglreiter had been engaged by the Company to develop devices associated with the Company's robotic surgical system, in particular, aspects of the instrumentation and the camera system. Prior to litigation, discussions were under way between the parties to negotiate appropriate arrangements with regard to the scope of work, timing, fees for services and other terms and conditions, until on October 4, 2019, the Company received a demand letter for payment of all amounts the service provider believed it was owed by the Company (the "Service Provider Demand Letter"). On October 11, 2019, the Company issued a response declining the terms of the demands set out in the Service Provider Demand Letter (the "Company Response Letter"). Pursuant to the Company Response Letter, the Company requested that the service provider cease all work on behalf of the Company.

On October 16, 2019, Naglreiter filed a Complaint for breach of contract against the Company in the U.S. District Court for the Southern District of Florida. The Complaint, which was served on the Company on October 24, 2019, alleges that the Company has not paid the amounts owed under several invoices and, further, that the invoices total approximately $5 million.

On December 5, 2019, the Company filed an Answer, Affirmative Defenses and Counterclaim denying the allegations, asserting defenses to the Complaint, and asserting counterclaims against Naglreiter for (i) breach of contract including that the services that were rendered by Naglreiter were not rendered in a satisfactory manner and that Naglreiter failed to return property paid for by the Company, (ii) fraudulent inducement, (iii) negligent misrepresentation, (iv) indemnification and (v) conversion for refusing to return Titan's property.

On February 13, 2020, Naglreiter filed an Amended Complaint against the Company to add a complaint of unjust enrichment alleging that Naglreiter had conferred benefits on the Company without the Company paying fair market value for them and asked the courts for a constructive trust over certain property of the Company in Naglreiter's possession.

On March 9, 2020, the Company filed an Answer and Affirmative Defenses to the Amended Complaint and an Amended Counterclaim, denying the allegations, asserting defenses to the Amended Complaint, and bringing additional counterclaims of (i) replevin to recover possession of personal property held by Naglreiter, (ii) civil theft for depriving the Company of its right to certain property in Naglreiter's possession and (iii) injunctive relief to have Naglreiter cease and desist the violation of confidentiality provisions in the parties' agreements.

The Company is seeking a return of property having a value of over $4 million as well as the return of amounts paid for work not done or inadequately done by Naglreiter. The Company intends to defend itself vigorously in this matter and pursue all relief to which it is entitled. There is no assurance that the Company will be successful in defending against the complaints or in its counterclaims against Naglreiter.

As the Company raises additional capital, it continues to make payments on valid past due invoices with current suppliers. Should the Company be successful in raising sufficient capital, which it may not be, the Company plans to complete paying valid past due invoices and then develop a work plan with input from suppliers that is consistent with the Company's priorities toward milestone achievement having regard to the Company's available capital resources. As the Company's Primary Supplier has agreed to waive certain deposit requirements, the Company plans to comply with the specified interim requirements of the supplier until the Company has raised sufficient capital to fund the deposit as described above. In any case in which the Company may be unable to normalize supplier relationships, it has identified alternative suppliers of those services.

The Company will need to replace any product development service provider in the event it should be necessary or desirable to the Company. However, the engagement of other service providers will be subject to the availability of sufficient capital, successful negotiation of commercial terms, statements of work, payment terms and possibly, require deposits and/or pre-payments. There is no assurance that the Company will be able to reach any agreement with any alternative supplier on satisfactory terms.

***Summary of Quarterly Results***

The following is selected financial data for each of the eight most recently completed quarters, derived from the Company's financial statements and calculated in accordance with IFRS. Net and Comprehensive Loss (gain) from operations figures include the effects of adjustments in the valuation of outstanding warrant liability. Basic and diluted loss per share figures are calculated on the basis of the 30:1 consolidation of common shares of the Company ("Common Shares"), which was effected in June 2018.

| | **Three Months Ended December 31, 2019** | **Three Months Ended September 30, 2019** | **Three Months Ended June 30, 2019** | **Three Months Ended March 31, 2019** | **Three Months Ended December 31, 2018** | **Three Months Ended September 30, 2018** | **Three Months Ended June 30, 2018** | **Three Months Ended March 31, 2018** |
|---|---|---|---|---|---|---|---|---|
| Net sales | - | - | - | - | - | - | - | - |
| Net and Comprehensive Loss (gain) from operations | ($2,412,863) | $1,564,196 | $14,472,866 | $28,282,880 | $8,410,702 | $7,534,456 | $5,885,415 | $808,699 |
| Basic and diluted (gain)/loss per share | ($0.07) | $0.05 | $0.46 | $1.22 | $0.41 | $0.41 | $0.47 | $0.07 |

Significant changes in key financial data from the three months ended March 31, 2018 through the three months ended December 31, 2019 reflect the ongoing development of the Company's single-port robotic surgical system. Also included is the requirement to revalue the Company's warrant

liability at fair value, with subsequent changes recorded through net and comprehensive loss for the period.

During the fourth quarter of 2019, the Company had net and comprehensive income of $2,412,863 compared to net and comprehensive loss of $8,410,702 for the same period in 2018. This change of $10,823,565 is primarily attributed to the gain on fair value of warrants in 2019 of $6,779,516 which is offset by a significant reduction in research and development expenditures of just $2,078,290, which along with other costs brings the net and comprehensive income to $2,412,863. In contrast, in the fourth quarter of 2018, the loss in the fair value of warrants was $7,166,276, which was offset by significantly higher research and development expenditures of $14,194,003, which along with other costs brings the net and comprehensive income to $8,410,702.

The significant decrease in research and development expenditures is attributed to the reduced funding available in the fourth quarter of 2019 compared to the same period of the prior year. The gain in the fair value of warrants in each period was as a result of the decline in the stock price at quarter end versus its previously reported value, thus reducing the warrant liability

***Liquidity and Capital Resources***

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

During the third and fourth quarter of 2019, the Company was unsuccessful in securing sufficient capital to continue product development and preparation for submissions to regulatory authorities. As a result, on October 15, 2019, the Company announced that it had withdrawn all forward-looking statements included in its continuous disclosure documents with respect to the cost and timing of the development of its robotic surgical system beyond the fourth quarter of 2019. On November 7, 2019, the Company announced that it had determined not to proceed with the October Offering.

The ability of the Company to arrange 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, or at all. If adequate funds are not available, or are not available on acceptable terms, the Company may not be able to resume its technology development program. If additional financing is raised by the issuance of shares or convertible securities from treasury, control of the Company may change and shareholders may suffer additional dilution, or loss of their investment.

The Company had cash and cash equivalents on hand of $814,492 and accounts payable and accrued liabilities, including the current portion of the lease liability, of $11,433,967 excluding warrant liability at December 31, 2019, compared to $11,471,243 and $6,447,888 respectively, at December 31, 2018. The Company’s working capital at December 31, 2019 was a deficit of $9,684,525 excluding warrant liability, compared to working capital of $14,294,791 at December 31, 2018.

The table below sets forth the Company's warrants (by series) that were previously issued and which remain outstanding.

| | Issue Date | Expiry Date | Number Issued Note 1 | Number Outstanding | Exercise Price (US$) | Exercise Price (CDN$) |
|---|---|---|---|---|---|---|
| TMD.W.T.F | [1] 16-Nov-15 | 16-Nov-20 | 233,740 | 233,740 | | 48.00 |
| TMD.W.T.G | [1] 12-Feb-16 | 12-Feb-21 | 389,027 | 386,694 | | 30.00 |
| TMD.W.T.G | [1] 23-Feb-16 | 23-Feb-21 | 58,226 | 58,226 | | 30.00 |
| TMD.W.T.H | [1] 31-Mar-16 | 31-Mar-21 | 501,831 | 501,831 | | 36.00 |
| TMD.W.T.H | [1] 14-Apr-16 | 31-Mar-21 | 75,275 | 75,275 | | 36.00 |
| TMD.W.T.I | [1] 20-Sep-16 | 20-Sep-21 | 569,444 | 569,444 | | 22.50 |
| TMD.W.T.I | [1] 27-Oct-16 | 20-Sep-21 | 67,667 | 67,667 | | 22.50 |
| Not Listed | [1] 16-Mar-17 | 16-Mar-21 | 357,787 | 355,253 | | 15.00 |
| Not Listed | [1] 29-Jun-17 | 29-Jun-22 | 1,612,955 | 75,810 | | 6.00 |
| Not Listed | [1] 21-Jul-17 | 29-Jun-22 | 370,567 | 370,567 | | 6.00 |
| Not Listed | [1] 24-Aug-17 | 24-Aug-22 | 563,067 | 563,067 | | 6.00 |
| Not Listed | [1] 5-Dec-17 | 5-Dec-22 | 1,533,333 | 1,533,333 | | 18.00 |
| Not Listed | [1] 10-Apr-18 | 10-Apr-23 | 1,126,665 | 1,126,665 | | 10.50 |
| Not Listed | [1] 10-May-18 | 10-Apr-23 | 168,889 | 168,889 | | 10.50 |
| Not Listed | [2] 10-Aug-18 | 10-Aug-23 | 7,679,574 | 6,661,068 | 2.92 | |
| Not Listed | [3] 21-Mar-19 | 21-Mar-24 | 8,455,882 | 8,455,882 | 3.95 | |
| | | | 23,763,929 | 21,203,411 | | |

Note 1 - After giving effect to the 30:1 Share Consolidation in June 2018
Note 2 - Includes a ratchet clause triggered August 29, 2019 lowering the exercise price from U.S. $3.20 to U.S. $2.92.
Note 3 - Includes a ratchet clause triggered August 29, 2019 lowering the exercise price from U.S. $4.00 to U.S. $3.95.

### *Development Objectives and Regulatory Plans*

The Company has used a combination of internal resources and external development firms to execute the research, development and regulatory plans for the Company's single-port robotic surgical system. Development objectives were previously established to support the Company's planned FDA 510(k) filing for marketing clearance in the U.S., and submittal of a Technical File to a European Notified Body for achievement of the CE mark, which indicates that a product for sale within the European Economic Area has been assessed to conform with health safety and environmental protection requirements.

The Company has previously confirmed with the FDA that confirmatory human data will be required for its planned 510(k) regulatory submission. The performance of human surgeries with the single-port robotic surgical system will require an IDE from the FDA, which must be submitted and approved in advance. Further, the recruitment of surgeons from multiple hospital sites will be necessary to perform the surgeries. Each of these sites will require approval of their independent Institutional Review Board ("IRB") to approve the studies.

Previous results achieved by surgeons in operating prototypes in animal and cadaver studies have validated the potential for single incision surgeries to be performed with the Company's single-port robotic surgical system. Insights gained from these preclinical studies have directed the Company to make further product improvements. Such improvements were implemented in a capital equipment engineering confidence build of an improved prototype, which was announced in January of 2019. On April 30, 2019, the Company announced that it had achieved hardware design freeze for its single-port robotic surgery system. In June 2019, the Company commenced preclinical live animal and cadaver studies according to GLP for FDA submittal. On July 18, 2019, the Company announced that it had completed all planned GLP surgical procedures necessary for its Investigational Device Exemption ("IDE") application to the FDA.

During the quarter ended September 30, 2019, the Company completed and documented the GLP procedures, and proceeded to complete the HFE studies, which included verification of production system operation with clinical experts under rigorous formal (summative) human factors evaluation under simulated robotic manipulation exercises. During the quarter, the Company's European Notified Body also completed audits of the Company's quality system procedures and related documentation for ISO Certification.

During the quarter ended December 31, 2019, the Company completed two of its three intended fourth quarter milestones including: (i) receipt of a final independent report from validation testing of system safety and usability for the intended users and use environments under simulated robotic manipulation exercises intended to replicate essential surgical tasks, and (ii) complete User Manual for robotic system setup by operating room staff and surgeon operation of the surgeon workstation, patient cart, instruments and accessories. The third milestone, receipt of ISO 13485 Certification, expected to be received by year-end 2019, was delayed in processing and was received January 24, 2020.

The future success of the Company is substantially dependent on the Company's ability to raise equity financing to fund its research and development program and on maintaining the support of its research and development and manufacturing service providers. See "*Liquidity and Capital Resources*".

Given the uncertainty of, among other things, the Company's ability to secure required capital to fund development and operating costs in a timely manner, product development timelines, regulatory processes and requirements (such as confirmatory human studies), actual costs and development times will exceed those set forth in the Company's MD&A for the three, six and nine months ended March 31, June 30 and September 30, 2019, and in the Company's 2018 annual information form dated March 31, 2019, and an accurate estimate of the future costs of the development milestones and regulatory phases is not possible at this time.

### *Current Development Plan*

The Company's development milestones are set forth in the table below (the "Current Development Plan").

| *Milestone Number* | *Development Milestones* | *Estimated Cost (in US million $)* | *Schedule for Milestone Completion* | *Comments* |
|---|---|---|---|---|
| Milestone 1 | a) Obtain final independent report from validation testing of system safety and usability for the intended users and use environments under simulated robotic manipulation exercises intended to replicate essential surgical tasks | | Q4 2019 | Completed |
| | b) Complete User Manual for robotic system setup by operating room staff and surgeon operation of surgeon workstation, patient cart, instruments and accessories | | | Completed |
| | c) Obtain ISO 13485 Certification[(1)] | | | Completed Q1 - 2020 |
| Milestone 2 | a) Perform additional software development and test system performance<br>b) Implement and test improvements to instruments, camera systems and accessories<br>c) Perform biocompatibility testing of instruments, camera systems and accessories at independent lab<br>d) Perform electrical safety testing for surgeon workstations and patient cart, including electromagnetic compatibility (EMC) and electromagnetic interference (EMI) tests at independent lab<br>e) Update application for IDE as additional testing lab data is received and continue preparations for human confirmatory studies | TBD | TBD | |

(1) The March Prospectus disclosed that obtaining ISO 13485 Certification was expected to occur in the third quarter of 2019; receipt of the certification was received January 24, 2020.

| *Milestone Number* | *Development Milestones* | *Estimated Cost (in US million $)* | *Schedule for Milestone Completion* | *Comments* |
|---|---|---|---|---|
| Milestone 3 | a) Launch rebranded product line, including logos with trademark pending, literature and presentation templates, product and packaging labeling, and new website<br>b) Complete system software validation<br>c) Submit IDE application to FDA[(2)] | TBD | TBD | |
| Milestone 4 | a) Receive IDE approval from FDA[(3)]<br>b) Receive approvals from IRB Committees of IDE hospitals<br>c) Commence human confirmatory studies under IDE protocols for FDA submittal | TBD | TBD | |
| Milestone 5 | a) Complete human confirmatory studies and patient follow-up and compile reports from human confirmatory studies<br>b) Submit 510(k) application to FDA<br>c) Submit Technical File to European Notified Body for review for CE mark<br>d) Ongoing software development and implementation<br>e) Planning and preparation for manufacturing and commercialization | TBD | TBD | |
| Milestone 6 | a) Planning and preparation for commercialization | TBD | TBD | |

Due to the ongoing limited availability of capital resources the Company has been unable to fund its planned pace of product development which has indefinitely moved out the projected date and will add to the estimated costs for the Company's submission of its 510(k) application. The Company has withdrawn the projections for achievement of all development milestones beyond

(2) Due to the ongoing limited availability of capital resources as well as the necessary product changes identified, the Company has not yet submitted its IDE application to the FDA. In addition, the Company has been unable to fund planned software development, verification and validation or complete the necessary product development, testing and documentation needed to meet regulatory requirements for an IDE application to the FDA. The Company has withdrawn the projections for achievement of all development milestones beyond Milestone 1, including their timing and cost until such time as the capital resources become available to resume these activities.

(3) The Company has withdrawn the projections for achievement of all development milestones beyond Milestone 1, including their timing and cost.

Milestone 1, including their timing and cost.

The details above with respect to Milestones 2, 3, 4, 5 and 6 reflect the Company's current plans with respect to the development steps for its robotic surgical system. At this time, the Company is unable to provide any forecast of timing or cost estimate in respect of the milestones, and, concurrently with the filing of its short form prospectus on October 15, 2019 in connection with the October Offering, the Company had issued a press release withdrawing all prior forecasts and estimates.

While the Company is assessing the availability of sufficient financing, it has taken temporary measures to reduce its cash burn over its historical rates, including the suspension of product development, staff reduction, sourcing more cost-effective resources and reducing its general and administrative overhead where possible.

During the third quarter of 2019, the Company completed the animal studies and the human factors evaluation studies originally planned for completion during the second quarter of 2019. However, data from the animal studies and human factors studies was delayed, followed by delays in receiving documentation required from third parties. In addition, the animal studies and human factors studies have identified additional product enhancements that the Company intends to implement before proceeding to human use, related to software, instrumentation and camera development. The implementation of product enhancements and the production of documentation for the Company's IDE application are paced by the availability of capital resources, which are currently insufficient to complete the work. As a result of these factors, the timing for submission of the IDE application to the FDA (Milestone 3) cannot be predicted at this time. Audits for ISO13485 were completed as planned during the third quarter. The issuance of the ISO13485 certificate was expected to occur during the fourth quarter (Milestone 1) but was actually received January 24, 2020.

The table below sets out certain details comparing the Company's previous development plan and expected costs as disclosed in the Company's March 2019 Prospectus against actual costs incurred in 2019:

| ***Development milestone as disclosed in March 2019 Prospectus*** | ***Estimated cost (in US $ million) as disclosed in March 2019 Prospectus (A)*** | ***Development milestone – Current Plan*** | ***Actual Cost (B)*** | ***Difference between estimated cost disclosed in March 2019 Prospectus and actual cost (A-B)*** | ***Reasons for Cost Difference*** |
|---|---|---|---|---|---|
| **Milestone 4**<br><br>Document results of confidence build unit testing, implement subsystem design | 16.0 | Completed Q1 2019 | 16.1 | 0.63% increase | Actual costs exceeded estimated costs due to minor variances. |

| *Development milestone as disclosed in March 2019 Prospectus* | *Estimated cost (in US $ million) as disclosed in March 2019 Prospectus*<br><br>*(A)* | *Development milestone – Current Plan* | *Actual Cost*<br><br>*(B)* | *Difference between estimated cost disclosed in March 2019 Prospectus and actual cost*<br><br>*(A-B)* | *Reasons for Cost Difference* |
|---|---|---|---|---|---|
| improvements and schedule preliminary audit of quality system by European Notified Body | | | | | |
| **Milestone 5**<br><br>Update system design and related hardware and software documentation | 16.9 | Completed Q2 2019 | 21.0 | 24.26% increase | Actual costs exceeded estimated costs due to unanticipated robotic system software issues and design changes related to consumable instruments and improved camera systems that interface with the robotic system and led to delays in the preparation of documentation for the IDE application. These issues also caused delay in the completion of the human factors evaluation that was completed in the third quarter of 2019 rather than as scheduled in the second quarter of 2019. |
| Verify production system operation with clinical experts under rigorous formal (summative) human factors evaluation under simulated robotic manipulation exercises | | Moved to Q3 2019 and Completed | | | |
| Implement single-port robotic surgical system hardware design freeze (5) | | Completed Q2 2019 | | | |
| Initiate preclinical live animal (swine) and cadaver studies according to final protocols for FDA submittal (5) | | Completed Q2 2019 | | | |
| Submit Investigational Device Exemption | | Moved to Current | | | |

| *Development milestone as disclosed in March 2019 Prospectus* | *Estimated cost (in US $ million) as disclosed in March 2019 Prospectus*<br><br>*(A)* | *Development milestone – Current Plan* | *Actual Cost*<br><br>*(B)* | *Difference between estimated cost disclosed in March 2019 Prospectus and actual cost*<br><br>*(A-B)* | *Reasons for Cost Difference* |
|---|---|---|---|---|---|
| (IDE) application to FDA | | Milestone 3(c) | | | |
| Submit draft protocols to FDA in Q-submission(s) for comment | | Completed Q2 2019 | | | |
| **Milestone 6**<br><br>Complete and document preclinical live animal (swine) and cadaver surgery studies according to final protocols for FDA submittal | 16.1 | Completed Q3 2019 | 13.1 | 18.63% decrease | Actual costs were less than estimated costs as not all steps were completed in the planned timeframe, with certain steps being deferred, including receipt of ISO 13485 Certification and IDE approval. The cause for this delay is the unanticipated robotic system software issues and design changes related to consumable instruments and improved camera systems that interface with the robotic system. |
| Obtain ISO 13485 Certification | | Completed Q1 2020 | | | |
| Receive IDE approval from FDA | | Moved to Current Milestone 4(a) | | | |
| **Milestone 7**<br><br>Complete and document human confirmatory studies under IDE protocols for FDA | | Moved to Current Milestone 5(a) | TBD | | The Company is, at this time, unable to provide any forecast of timing or cost estimate in respect of these |

| *Development milestone as disclosed in March 2019 Prospectus* | *Estimated cost (in US $ million) as disclosed in March 2019 Prospectus (A)* | *Development milestone – Current Plan* | *Actual Cost (B)* | *Difference between estimated cost disclosed in March 2019 Prospectus and actual cost (A-B)* | *Reasons for Cost Difference* |
|---|---|---|---|---|---|
| submittal | | | | | milestones, and, concurrently with the filing of its short form prospectus on October 15, 2019 in connection with the October Offering, the Company had issued a press release withdrawing all prior forecasts and estimates. |
| Submit Technical File to European Notified Body for review for CE Mark | | Moved to Current Milestone 5(c) | | | |
| Submit 510(k) application to FDA | | Moved to Current Milestone 5(b) | | | |

The Company had previously forecasted at June 30, 2019 that in the second half of 2019, it expected to incur total milestone-related expenses of approximately $42.3 million. The Company's actual expenses totaled approximately $22.4 million. The difference between the original and updated milestone-related costs is primarily related to scaled back operations resulting from the Company's capital shortfall. The Company has withdrawn the projections for achievement of all milestones beyond Milestone 1, including the timing and cost estimates.

Due to the nature of technology research and development and the Company's lack of sufficient capital, there is no assurance that these future 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 milestones could be identified as the development of its single-port robotic surgical system progresses, or existing milestones, budgets and the schedule for completion of each milestone may change depending on a number of factors including the results of the Company's development program, clarification of or changes to regulatory requirements, the availability of financing and the ability of development firms engaged by the Company to complete work assigned to them. The total costs and time to complete the development of the Company's single-port robotic surgical system cannot be forecast beyond 2019. Please see the section "*Forward-Looking Statements*".

Please also refer to the risk factors set forth starting on page 17 of the Company's Annual Information Form for the 2018 fiscal year, available on SEDAR at www.sedar.com.

***Financings***

***Offerings since 2019***

On March 25, 2020, the Company entered into definitive agreements with institutional investors that provide for the purchase and sale of 7,000,000 common shares of the Company (the "Common Shares") at a per share purchase price of US $0.17 per Common Share and 3,500,000 Common Share purchase warrants (each, a "Warrant"), resulting in total gross proceeds of approximately $1.2 million (approximately $0.885 million net of closing costs including cash commission described below). Each whole Warrant is exercisable to purchase one Common Share (a "Warrant Share") at an exercise price of US $0.19 per Common Share for a period of five years following the date of closing of the offering. The warrants were valued at $618,100 based on the value determined by the Black-Scholes model and the balance of $571,900 was allocated to common shares.

H.C. Wainwright & Co.("Wainwright") acted as the exclusive placement agent for the offering. Pursuant to the placement agency agreement, in addition to the cash commission paid to Wainwright of $83,300, broker warrants were issued to Wainwright which entitle the holder to purchase 490,000 Common Shares at a price of US $0.2125 per share prior to expiry on March 25, 2025.

Titan intends to use the net proceeds from the offering for general corporate purposes including: resuming the development of its single-port robotic surgical system, instruments and accessories; funding working capital (including the reduction of outstanding payables); and capital expenditures.

From January 3, 2020 to the date of this report, the Company has raised $2,071,930 through the sale of 4,408,048 Common Shares to Aspire Capital in accordance with the terms of the Second Aspire Agreement as further described below.

On January 3, 2020, Cambridge Design Partnership Ltd. ("Cambridge") agreed to purchase from the Company 501,148 Common Shares at a price of $0.50 per share and the purchase price was satisfied by way of Cambridge setting off $250,574 owing by the Company to Cambridge for services rendered by Cambridge.

***Offerings During 2019***

On December 23, 2019, the Company announced that it had entered into a second Common Share Purchase Agreement ("Second Aspire Agreement") with Aspire Capital Fund, LLC ("Aspire Capital") under which Aspire Capital committed to purchase up to US $35.0 million of common shares of Titan at the Company's request from time to time, until June 23, 2022, subject to the terms and conditions of the agreement. In accordance with the terms of the Second Aspire Agreement, the Company immediately issued 973,000 Common Shares to Aspire Capital as a commitment fee (the "December Commitment Shares") upon entering into the agreement, and subsequent to the year-end, the Company has raised an additional $2,071,930 through the sale of 4,408,048 Common Shares to Aspire Capital.

Titan filed a prospectus supplement to the Company's Form F-3 shelf registration statement (File No. 333-232898), which was declared effective on December 23, 2019 by the U.S. Securities and

Exchange Commission, qualifying the additional offer and sale of Common Shares to Aspire Capital (including the December Commitment Shares).

On November 1, 2019, the Company announced that it had filed and been receipted for a final short form prospectus filed in Ontario, British Columbia and Alberta in connection with the October Offering. On November 7, 2019, the Company announced that it had determined not to proceed with the October Offering.

On August 29, 2019, the Company announced that it had entered into a Common Share Purchase Agreement (the "Aspire Agreement") with Aspire Capital under which Aspire Capital committed to purchase up to US $35.0 million of common shares of Titan at the Company's request from time to time, until February 28, 2022, subject to the terms and conditions of the agreement. On commencing the Aspire Agreement, the Company immediately sold to Aspire Capital 1,777,325 Common Shares at a price of US $1.6879 per share for gross proceeds of US $3.0 million, and also issued 639,837 Common Shares to Aspire as a commitment fee (the "August Commitment Shares"). Until the Aspire Agreement was terminated on December 23, 2019 (pursuant to and upon entering into the Second Aspire Agreement described above), the Company raised a further $2,304,531 and issued an additional 5,367,282 Common Shares at an average price of $0.4294 per share.

Titan filed a prospectus supplement to the Company's Form F-3 shelf registration statement (File No. 333-232898), which was declared effective on August 2, 2019 by the U.S. Securities and Exchange Commission, qualifying the offer and sale of Common Shares to Aspire Capital (including the August Commitment Shares) pursuant to the Aspire Agreement. Northland Securities, Inc. acted as the Company's agent and financial advisor in connection with the offering and was paid a cash fee of $160,000.

On March 21, 2019, Titan completed an offering of securities made pursuant to an agency agreement ("Agency Agreement") dated March 18, 2019 between the Company and Bloom Burton Securities Inc. as agent ("Bloom Burton"). The Company sold 8,455,882 units under the offering at a price of $3.40 per unit for gross proceeds of approximately $28,750,000 ($25,426, 744 net of closing cost including cash commission of $2,012,500). Each unit consisted of one common share of the Company and one warrant, each warrant entitling the holder thereof to acquire one common share at an exercise price of $4.00 and expiring March 21, 2024. The warrants were valued at $15,897,059 based on the value determined by the Black-Scholes model and the balance of $12,852,941 was allocated to the common shares.

Pursuant to the Agency Agreement, in addition to the cash commission paid to Bloom Burton, broker warrants were issued to Bloom Burton which entitle the holder to purchase 591,911 common shares at a price of $3.40 per share prior to expiry on March 21, 2021. The broker warrants were valued using the Black-Sholes model and the value of $864,190 was accounted for as an increase in the closing costs and allocated between the shares and the warrants.

During the three months ended March 31, 2019, 1,018,506 warrants were exercised for total proceeds of $3,259,219. The fair value of the exercised warrants was $3,742,824 which was reclassed from warrant liability to common shares.

### *Off-Balance Sheet Arrangements*

As of the date of this report, the Company had no off-balance sheet arrangements.

### *Outstanding Share Data*

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

| **Type of Securities** | **Number of Common Shares issued or issuable upon conversion** |
|---|---|
| Common Shares[(1)] | 51,816,877 |
| Stock options[(2)] | 1,740,186 |
| Warrants | 24,703,411 |
| Broker warrants[(3)] | 1,709,276 |

Notes:

(1) Refer to details of the offerings in the previous section of this document.

(2) The Company has outstanding options enabling certain employees, directors, officers and consultants to purchase common shares. Please refer to note 7(b) of the Financial Statements for the years ended December 31, 2019 and 2018 for terms of such options.

- Includes 25,765 stock options issued January 2020 with an exercise price of CDN $0.657 to a director in exchange for services rendered. The options vest immediately and have a contractual life of 7 years.

(3) A total of 1,219,276 broker warrants were issued in connection with the April 2018, August 2018 and March 2019 offerings. As of the date hereof, 1,219,276 broker warrants remain outstanding. Details include the following:

- Pursuant to the agency agreement in respect of the April 2018 offering, in addition to the cash commission paid to the agents, 89,795 broker warrants were issued to the agents. Each broker warrant entitles the holder thereof to acquire one common share at the price of CDN $9.00 for a period of 24 months following the closing date.
- Pursuant to the agency agreement in respect of the August 2018 offering, in addition to the cash commission paid to the agents, 537,570 broker warrants were issued to the agents. Each broker warrant entitles the holder thereof to acquire one common share at the price of US $2.50 for a period of 24 months following the closing date.
- Pursuant to the agency agreement in respect of the March 2019 offering, in addition to the cash commission paid to the agents, 591,911 broker warrants were issued to the agents. Each broker warrant entitles the holder thereof to acquire one common share at the price of US $3.40 for a period of 24 months following the closing date.

### *Accounting Policies*

The accounting policies set out in the notes to the audited financial statements have been applied in preparing the audited financial statements for the year ended December 31, 2019 including the comparative information presented in the audited financial statements for the year ended December 31, 2018.

These financial statements have been prepared in accordance with accounting principles applicable to going concern, which contemplates that the Company will be able to realize its assets and settle its liabilities in the normal course as they come due during the normal course of operations for the foreseeable future. The Company has shareholders' deficiency of $214,844,773 and current year losses of $41,907,079. The Company currently does not generate any revenue (other than interest income on its cash balances) and accordingly it is primarily dependent upon equity financing for any additional funding required for development and operating expenses. These conditions indicate the existence of a material uncertainty that may cast significant doubt on the ability of the Company to continue as a going concern if additional funding is not secured.

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

***(a) Stock Options***

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

***(b) Warrant Liability***

In accordance with IAS 32, since the exercise price of certain of the Company's warrants are not a fixed amount, as they are a) denominated in a currency (Canadian dollar) other than the Company's functional currency (U.S. dollar), or, b) as with the warrants issued August 10, 2018 and March 21, 2019, have a cashless exercise option, the warrants are accounted for as a derivative financial liability. The warrant liability is initially measured at fair value and subsequent changes in fair value are recorded through net and comprehensive loss for the period. The accounting guidance for fair value measurements prioritizes the inputs used in measuring fair value into the following hierarchy:

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

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

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

The fair value of the Company's warrant liability is initially based on level 2 (significant observable inputs) and at December 31, 2019 is based on level 1, quoted prices (unadjusted) in an active market, for the Company's listed warrants and level 2 for the Company's unlisted warrants.

***Related Party Transactions***

During the year ended December 31, 2019, transactions between the Company and directors, officers and other related parties were related to compensation matters in the normal course of operations and are measured at the exchange amount, which is the amount of consideration established and agreed to by the related parties.

***Financial Instruments***

The Company's financial instruments consist of cash and cash equivalents, amounts receivable, accounts payable and accrued liabilities and warrant liability. The fair value of these financial instruments approximates their carrying values, unless otherwise noted, due to the short-term maturities of these instruments or the discount rate applied.

***Events Subsequent to the year Ended December 31, 2019***

Since December 31, 2019, the outbreak of the novel strain of coronavirus, specifically identified as "COVID-19", has resulted in governments worldwide enacting emergency measures to combat the spread of the virus. These measures, which include the implementation of travel bans, self-imposed quarantine periods and social distancing, have caused material disruption to business globally resulting in an economic slowdown. Global equity markets have experienced significant volatility and weakness. Governments and central banks have reacted with significant monetary and fiscal interventions designed to stabilize economic conditions. The duration and impact of the COVID-19 outbreak is unknown at this time, as is the efficacy of the government and central bank interventions. It is not possible to reliably estimate the length and severity of these developments and the impact on the financial results and condition of the Company in future periods.

On January 28, 2020, the Company issued 25,765 stock options with an exercise price of CDN $0.657 to a director in exchange for services rendered. The options vest immediately and have a contractual life of 7 years.

See also the section "*Financings – Offerings since 2019*".

***Outlook***

During the year ended December 31, 2019, the Company was unsuccessful in securing sufficient capital to maintain product development and regulatory activities at a pace that would allow accomplishment of its previously stated milestones. As a result, on October 15, 2019, the Company announced that it had withdrawn all forward-looking statements included in its continuous disclosure documents with respect to the cost and timing of the development of its robotic surgical system beyond the fourth quarter of 2019. On November 7, 2019, the Company announced that it had determined not to proceed with the October Offering.

The Company does not have sufficient capital to continue the development of its robotic surgical system and there can be no assurance that the Company will be successful in securing additional financing. The Company is currently pursuing additional financing as its top priority. Any further development of the Company's robotic surgical system is entirely contingent on the availability of such financing and, accordingly, any future development of the Company's robotic surgical system cannot be predicted at this time. The Company's Primary Supplier has ceased all work on the development of the Company's robotic surgical system and its Service Provider has initiated a Civil Claim against the Company. The Company has taken certain measures to reduce its cash burn over its historical rates, including a significant reduction in its rate of development, sourcing more cost-effective resources and reducing its general and administrative overhead where possible.

Following the above noted adverse events during second half of 2019, the Company's Board of Directors established a special committee of independent directors to oversee the global search for strategic alternative transactions to maximize shareholder value. The mandate of the special committee includes a wide range of potential transactions, including financing through equity or

debt, licensing, merger or acquisition. There can be no assurance that the Company will be successful in securing additional capital or identifying a suitable strategic alternative transaction. In the event that the Company is unable to secure additional capital or conclude a suitable strategic alternative transaction, it may be unable to pay down past due invoices or resume and continue its product development. It is also possible that in such circumstances its relationships with key service providers may further deteriorate. As a result of these factors, the schedule for completion of the Company's stated milestones cannot be predicted at this time.

Additional information relating to the Company, including Titan's Annual Information Form for the 2019 fiscal year, is available on SEDAR at www.sedar.com.