**TITAN MEDICAL INC.**

**MANAGEMENT'S DISCUSSION AND ANALYSIS**

**FOR THE THREE AND NINE MONTHS ENDED SEPTEMBER 30, 2020**

**(IN UNITED STATES DOLLARS)**

This Management's Discussion and Analysis ("MD&A") is dated November 16, 2020.

***Introduction***

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 consolidated financial statements for the three and nine months ended September 30, 2020 (and the notes thereto) (the "Interim Financial Statements") and the annual audited financial statements for the years ended December 31, 2019 and 2018. The Interim Financial Statements have been prepared in accordance with International Financial Reporting Standards 34, Interim Financial Reporting ("IAS 34"). All financial figures are in United States Dollars except where otherwise noted.

***Internal Control over Financial Reporting***

During the three and nine months ended September 30, 2020, 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 "expect", "anticipate", "estimate", "may", "could", "might", "will", "would", "should", "intend", "believe", "target", "budget", "plan", "strategy", "goals", "objectives", "predicts"; "potential", "projects", "possible", "milestones", "projection" or the negative of any of these words and similar expressions are intended to identify forward-looking statements, although these words may not be present in all forward-looking statements. Forward-looking statements that may appear in this MD&A include statements concerning:

- 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 consists of the design and development of robotic-assisted technologies for application in single access surgery and is presently focused on development of the Enos™ single access robotic surgical system (the "Enos system") and development under the Development Agreement (as defined herein);

- the Enos under development includes a surgeon-controlled patient cart that includes a 3D high definition vision system and multi-articulating instruments for performing minimally invasive surgery ("MIS") procedures;
- the Enos system under development includes a surgeon workstation that provides the surgeon with an ergonomic interface to the patient cart and a 3D high-definition view of the MIS procedures;
- the Company's intent to initially pursue gynecologic surgical indications for use of its Enos system;
- the Company's plan to continue development of a robust training curriculum and post-training assessment tools for surgeons and surgical teams;
- the training curriculum, which 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, which will include validation of the effectiveness of those assessment tools;
- the Company's filing and prosecution of patents that management believes validate the novelty of its unique technology and support the value of the entire franchise;
- the performance of human surgeries with the Enos system will require an Investigational Device Exemption ("IDE") from the Food and Drug Administration ("FDA"), which must be submitted and approved in advance;
- the need for further Good Laboratory Practice ("GLP") and human factors evaluation ("HFE") preclinical studies in order to demonstrate the safety and performance of the system prior to proceeding with IDE clinical studies;
- 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;
- that an application to the IRB of each hospital will be made once the FDA has approved the Company's IDE application;
- the Company's intention to pursue the De Novo classification process if the 510(k) pathway is not available to the Company;
- the outcome of any review by the FDA and the time required to complete activities necessary for regulatory approval or clearance;
- the Company's plan to file one or more additional Pre-Submissions with the FDA to allow it to review specific aspects of the design of the Company's surgical system, the intended use, and potential predicate devices, in order to clarify the requirements for the IDE clinical study protocol, confirm the appropriate regulatory pathway, and/or understand any additional special controls which the FDA may apply;
- the Company's ability to secure required capital to fund development and operating costs in a timely manner;
- the Company has sufficient cash on hand to satisfy expected costs associated with the deliverables under Medtronic Milestone 3 and upon receipt of the $10 million license payment associated with Medtronic Milestone 3, it expects to have sufficient cash to satisfy the costs associated with Medtronic Milestone 4, as well as to satisfy the repayment of the Note when it becomes due;
- the Company will require additional funding to complete development of its Enos system;

- actual costs and development times, which will exceed those previously set forth by the Company, including those set forth in 2019;
- the fact that the Company cannot produce an accurate estimate of the future costs of the development milestones and regulatory phases beyond the year 2021;
- 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, "Development" and the footnotes thereunder;
- the indication of additional specific milestones as the development of the Enos system progresses;
- 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 plans to design, create and refine software for production system functionality of the Enos system and the estimated incremental costs (including the status, cost and timing of achieving the development milestones disclosed herein);
- the Company's plan to further expand its patent portfolio by filing additional patent applications as it progresses in the development of robotic-assisted surgical technologies and, potentially, by licensing suitable technologies;
- the Company will develop certain robotic-assisted surgery technologies pursuant to a development and license agreement entered into by the Company with Medtronic plc ("Medtronic") on June 3, 2020;
- the Company will receive a series of payments for Medtronic's license to robotic-assisted surgery technologies;
- should there be a change in control or a sale of all or substantially all of the assets of Titan, Titan may assign and transfer its rights and obligations under the Development Agreement and License Agreement, including the licensed patents and retained intellectual property rights;
- the Company will retain the rights to commercialize the developed technology in its own business, including for use with the Enos system;
- the Company's ability to meet the continued listing requirements and initial listing standards for the Nasdaq and the TSX;
- the Company's guidance on the regulatory process and the costs and time that may be involved, including whether it expects to or is required to proceed with a De Novo classification request;
- the Company's expectations with respect to its relationship with its suppliers and product development firms;
- the engagement of certain contractors and suppliers and the assurance that those parties will all be agreeable to engage throughout the project on terms satisfactory to the Company;
- the Company's intentions to complete summative human factors studies and complete the design and development of the system and initiate clinical studies;
- the surgical indications for, and the benefits of, the Enos system;
- the Company's seeking of licensing opportunities to expand its intellectual property portfolio;
- obtaining or maintaining trademark registrations for the marks and names the Company uses in one or more countries and the future use of such marks and names;
- the Company's expected market segments and principal markets;

- the Company's industry and the markets in which it plans to operate or seeks to operate, including its general expectations and market position, market opportunities and market share;
- the Company's ability to arrange further debt financing;
- the projected competitive conditions with respect to the Company's products;
- the Company's intention to confirm with the FDA the relevant regulatory pathway through the Pre-Submission process, and to initiate planning for the implementation of its IDE clinical studies;
- the estimated size of the market for the Enos systems; and
- the Company's expectation to implement improvements to its instruments, end-effectors and cameras and related modifications to the central unit of the patient cart, and complete software development for its Enos system.

Forward-looking statements are statements about the future and are inherently uncertain, and actual results of the Company or other future events or conditions may differ materially from those reflected in the forward-looking statements due to a variety of risks, uncertainties and other factors, including those referred to in this MD&A. These risks include, but are not limited to:

- dependency on additional financing;
- the Medtronic Loan (as defined herein) and the Note (as defined herein) may limit or preclude the Company from arranging further debt 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;
- industry competitiveness;
- operating without infringement of intellectual property rights of others;
- obtaining and enforcing patent protection for the Company's products;
- obtaining or maintaining our trademarks;
- conflicts of interest;
- fluctuating financial results;
- rapidly changing markets;
- introduction of more technologically advanced products by competitors;
- potential product liability claims;
- ability to license other intellectual property rights;
- government regulation;
- modifications to products requiring new regulatory clearance;
- extensive post-market regulation;
- the Company's products causing or contributing to a death or serious injury;
- recalls by governmental authorities;
- compliance with accounting regulations and tax rules across multiple jurisdictions;
- contingent liabilities;
- sales cycle for the Enos system;

- uncertainty as to product development and commercialization milestones;
- uncertainties as to development and manufacturing of a commercially viable product;
- manufacturing delays, interruptions and cost overruns;
- reliance on external suppliers and development firms;
- delays, liability and negative perceptions from product malfunction;
- instruments, components and accessories require repeated cleaning and sterilization;
- commercial disputes;
- additional regulatory burden and controls over financial reporting;
- fluctuations in foreign currency;
- 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;
- reduced disclosure requirements applicable to "emerging growth companies";
- cyber-security risks and threats;
- adverse impact on the Company's financial condition and results of operations for fiscal 2020 as a result of COVID-19;
- current global financial conditions;
- results of operations;
- difficulties with forecasting future operating results;
- profitability;
- obligations as a public company;
- stock price volatility;
- possible future sales by the Company's shareholders of their securities;
- limited operating history of the Company;
- 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-assisted 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.

Forward-looking statements are based on a number of assumptions, which may prove to be incorrect, including but not limited to assumptions about:

- general business and current global economic conditions;
- future success of current research and development activities;
- achieving development milestones;
- inability to achieve product cost targets;
- competition;
- potential changes to regulatory clearance processes in the United States and Europe;
- changes to tax rates and benefits;
- the availability of financing on a timely basis;
- the Company's and competitors' costs of production and operations;
- the Company's ability to attract and retain skilled employees;
- the Company's ongoing relations with its third-party service providers;
- the design of the Enos system and related platforms and equipment;
- the progress and timing of the development of the Enos system;

- costs related to the development of the Enos system;
- receipt of all applicable regulatory approvals/clearances;
- estimates and projections regarding the robotic-assisted surgery equipment industry;
- protection of the Company's intellectual property rights;
- market acceptance of the Company's systems under development;
- the Company's ability to meet the continued listing standards of Nasdaq and the TSX; and
- the type of specialized skill and knowledge required to develop the Enos system and the Company's access to such specialized skill and knowledge.

Please also refer to the risk factors set forth starting on page 10 of the Company's annual report on Form 20-F for the 2019 fiscal year, (the "Annual Report") available on SEDAR at www.sedar.com, which are expressly incorporated by reference into this MD&A.

In addition to the risk factors listed above and those incorporated by reference in this MD&A, we are also subject to the following risks:

*Development Agreement & License Agreement with Medtronic*

On June 3, 2020, the Company entered into a development and license agreement (the "Development Agreement") with a U.S. affiliate of Medtronic in connection with the development of robotic assisted surgical technologies and a separate license agreement (the "License Agreement") with Medtronic in respect of certain already developed Company technologies.

There is no assurance that the Company will receive certain payments from Medtronic pursuant to the Development Agreement. On June 10, 2020, the Company received a $10 million license payment pursuant to the License Agreement and on October 28, 2020, the Company received a further license payment of $10 million for completion of Medtronic Milestone 1 pursuant to the Development Agreement. The Company's entitlement to receive up to an additional $21 million pursuant to the Development Agreement is conditional upon the completion of Medtronic Milestones 3 and 4 set forth in the Development Agreement.

The technology development described in Medtronic Milestones 3 and 4 involves complex electromechanical design and development and there is no assurance that the milestones will be satisfied on a timely basis or at all. The technology design and development require a combination of personnel with experience and expertise in robotic-assisted surgical technology and financial resources.

The Company is also dependent on the engagement of certain contractors and suppliers and there is no assurance that those parties will all be agreeable to engage throughout the project on terms satisfactory to the Company or at all.

*Senior Secured Loan with Medtronic*

The Medtronic Loan and the Note may limit or preclude the Company from arranging further debt financing. Under the terms of the Note and related Security Agreement (as defined herein), the Medtronic Lender (as defined herein) has certain rights and powers that, if exercised, could have a material adverse effect on the Company's business. Due to the senior ranking of the Medtronic Lender's security interest in all of the Company's assets under the Security Agreement, the Company may be limited in, or entirely precluded from, granting a security interest in its assets in support of any further debt financing the Company may seek from any other lender, unless the security interest under the further debt financing is subordinate to the Medtronic Lender's security

interest or the Medtronic Loan and the Note is paid in full satisfaction as permitted therein. In the event that the Company were to seek further debt financing and if it were not possible to subordinate the further debt financing or otherwise pay the Medtronic Loan and the Note in full satisfaction, the Company would need to seek financing by way of equity financing and there is no assurance that further equity financing will be available or available on acceptable terms.

*Nasdaq*

On August 5, 2020, the Company received notification from Nasdaq that, based on the closing bid price of its common shares for the last 30 consecutive business days, it was not in compliance with the requirement to maintain a minimum bid price of $1 per share. The Nasdaq listing rules provide the Company a period of 180 calendar days in which to regain compliance with this requirement. If at any time during this 180-day period the closing bid price of the Company's security is at least $1 for a minimum of 10 consecutive business days, the Company will have regained compliance.

In the event the Company does not regain compliance in that period, the Company may be eligible for additional time. To qualify, the Company will be required to meet the continued listing requirement for market value of publicly held shares and all other initial listing standards for Nasdaq, with the exception of the bid price requirement, and will need to provide written notice of its intention to cure the deficiency during the second compliance period, by effecting a share consolidation, if necessary. If the Company meets these requirements, Nasdaq may inform the Company that it has been granted an additional 180 calendar days. However, if it appears to Nasdaq that the Company will not be able to cure the deficiency, or if the Company is otherwise not eligible, Nasdaq will provide notice that its securities will be subject to delisting. There can be no assurance that the Company will be able to cure this deficiency.

*COVID-19*

In light of the ongoing COVID-19 pandemic, governments worldwide have continued to enact 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, along with the uncertainty around the disease itself, have caused material disruption to business globally. The duration and impact of the COVID-19 pandemic continue to be unknown, as is the efficacy of government measures and economic 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. Due to the uncertainty caused by the COVID-19 pandemic, the Company has experienced difficulty in recruiting technical personnel. Travel restrictions have also prevented or delayed the ability of its executive team to transit between its facilities, as well as slowed the selection and qualification of suppliers for certain aspects of its development programs. The effects of these impediments on the Company's ability to achieve its milestones, including the timeline and cost for completion of its development programs, is unknown at this time.

*Regulatory*

The Company has not completed any regulatory submissions for marketing approval or clearance, including a submission of a premarket notification (510(k)) with the FDA, and will not do so in the foreseeable future. Further, it is not possible to predict with certainty the outcome of any regulatory agency review upon submission and the effect of that outcome on the time required to complete activities required for regulatory approval or clearance. The Company plans to submit one or more submissions to the FDA to clarify the appropriate regulatory pathway requirements

for human clinical studies, and any additional special controls which the FDA may apply, including those that are deemed applicable to robotically assisted surgical devices in general. It is unclear whether the FDA will continue to allow the use of the 510(k) pathway for robotically assisted surgical devices, where device manufacturers can demonstrate that the new device is substantially equivalent to a legally marketed predicate device, or whether a De Novo classification request would be required (see "*Regulatory Overview*").

In the event the Company needs to proceed with a De Novo classification request, additional resources, costs and time would be required for the Company to seek regulatory approval or clearance. Until the Company further communicates with the FDA through one or more submissions and receives feedback from the FDA, the Company cannot provide additional guidance on the regulatory process and the costs and time that may be involved, including whether it expects to or is required to proceed with a De Novo classification request.

The Company cautions that the foregoing list of important factors and assumptions is not exhaustive. Although the Company has attempted to identify on a reasonable basis important factors and assumptions related to forward-looking statements, there can be no assurance that forward-looking statements will prove to be accurate, as events or circumstances or other factors could cause actual results to differ materially from those estimated or projected and expressed in, or implied by, these forward-looking statements. Other than as specifically required by law, the Company undertakes no obligation to update any forward-looking statement to reflect events or circumstances after the date on which such statement is made, or to reflect the occurrence of unanticipated events, whether as a result of new information, future events or results or otherwise. Accordingly, readers should not place undue reliance on forward-looking statements.

***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.

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.

In June 2020, the Company established Titan Medical USA Inc. ("Titan USA" or "Subsidiary"), a Delaware corporation and a wholly owned subsidiary of the Company. Titan USA's principal activity consists of research and development from its premises located in Chapel Hill, North Carolina, United States.

***Company Overview***

The Company's business consists of the design and development of robotic-assisted technologies for application in single access surgery and is presently focused on development of the Enos system and development under the Medtronic Development Agreement. The design of the Enos system includes a surgeon-controlled patient cart for performing single access surgical procedures, and a surgeon workstation that provides the surgeon with an ergonomic interface to the patient cart. The Company intends to initially pursue gynecologic surgical indications for use of its Enos system.

Development of the Enos system has proceeded with input from key opinion leaders experienced in robotic assisted surgery and minimally invasive surgery, and through the consultation with leading medical technology development firms. This approach has positioned the Company to focus its design on a robotic single access surgical system intended to include the traditional

advantages of robotic-assisted surgery, including 3D stereoscopic imaging and instinctive control, as well as new and enhanced features, including an ergonomic workstation incorporating an open 3D high definition display and a patient cart facilitating the use of a dual-view camera system and multi-articulating instruments for enhanced visualization and dexterity for single access surgery.

The patient cart has been designed to facilitate surgical procedures conducted through a single access port with the dual-view camera system and multi-articulating instruments delivered through a single camera insertion tube ("CIT"). The dual-view camera system consists of an articulating 3D high-definition endoscopic camera with integral light source and an insertion tube having a diameter of approximately 25 millimeters that houses an integrated 2D high-definition camera with an independent light source, and lumens for delivery of the endoscopic camera and two multi-articulating instruments to the target tissue. Upon insertion through the access port, the insertion tube with the integrated 2D camera provides visualization of the surgical site for optimal positioning. Once positioned in the body, the insertion tube is docked to a central unit ("CU") of the patient cart and thereafter facilitates the insertion of the 3D endoscopic camera and multi-articulating instruments that can be controlled by the surgeon via the workstation to perform the surgical procedure. The reusable multi-articulating, "snake-like" instruments are designed to facilitate an assortment of permanent and detachable single patient use end effectors. The use of reusable (for a specific number of uses) robotic instruments that can be cleaned and sterilized between surgeries is intended to minimize the cost per procedure without compromising surgical performance. The design of the patient cart allows for configurability for a number 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 the Enos system, the Company plans on a robust training curriculum and post-training assessment tools for surgeons and surgical teams. The 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. A software training system developer has produced fourteen core surgical skills simulation modules customized for use with the surgeon workstation in the first phase of the comprehensive surgeon training curriculum that the Company plans for the Enos system.

The Company continuously evaluates its technologies under development for intellectual property protection through a combination of trade secrets and patent application filings. The Company has focused on the filing and prosecution of patents that management believes validate the novelty of its unique technology, and in turn, support the value of the entire franchise. The Company's patent portfolio has expanded from 12 issued patents at December 31, 2016 to 59 issued patents and 85 patent applications as of September 30, 2020. The Company anticipates further expanding its patent portfolio by filing additional patent applications as it progresses in the development of robotic surgical technologies and, potentially, by licensing suitable technologies.

*Regulatory Overview*

The Company has used a combination of internal resources and external development firms to execute the research, development and regulatory plans for the Enos system. Development objectives were established to support the planned 510(k) submission to the FDA 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 to health safety and environmental protection requirements.

In the U.S., the Q-Submission Program provides companies an opportunity to interact with and obtain feedback from the FDA on planned submissions including IDE applications, 510(k) applications and De Novo classification requests. Certain Q-Submissions, termed Pre-Submissions, typically include a request for written feedback, and, if the company chooses, a meeting in which additional feedback and findings are documented in meeting minutes. The recommendations made by the FDA in response to a Pre-Submission are binding, unless circumstances related to a company's product or potential risks identified through post-market surveillance of similar products in clinical use change the position of the FDA in the future. Furthermore, while the FDA encourages Q-Submissions, there is no assurance that feedback provided from these communications will result in regulatory clearance or approval, nor does it preclude any identified future changes in regulatory pathway.

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 Enos 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 IRB to approve the studies. Application to the IRB of each hospital can be made once the FDA has approved the Company's IDE application.

The Company has established its plans for development and preparation for regulatory clearance based on its expectation that the Enos system will be subject to 510(k) clearance, as previously confirmed with the FDA. However, in the Company's recent communications with the FDA, the FDA has raised the question of whether robotically assisted surgical devices would generally continue to be eligible for categorization as Class II medical devices and the 510(k) pathway, or whether De Novo classification requests would be used for such devices. If the 510(k) pathway is not available to the Company, the Company intends to pursue the De Novo classification process.

The De Novo classification request provides a pathway for the FDA to classify novel medical devices for which general controls, or general and special controls, provide a reasonable assurance of safety and effectiveness, but for which there is no legally marketed predicate device. The De Novo process allows the FDA to review a company's submission and reasons as to why the device should be a Class II device, including the review of the general and special controls that would provide reasonable assurance of the safety and effectiveness of the device. Included in such a classification request, clinical, non-clinical, test and design data may be provided to support a company's recommendation for the classification of the device as a Class II device. After the FDA receives and reviews a request, a determination (generally within 150 days) is made to either grant or decline the request. If the request is granted, (i.e. the device is determined to be a Class II device), the device is authorized to be marketed and may serve as a predicate device for future 510(k) submissions of devices of the same type. If the request is declined, and the device is therefore classified as a Class III device, a Premarket Approval application would be required to market the device, involving a more expensive and time-consuming approval process.

Since the Company has not yet submitted any regulatory applications, it is not possible to predict with certainty the outcome of any review by the FDA or the time required to complete activities necessary for regulatory approval or clearance. Therefore, the Company plans to file one or more additional submissions with the FDA to allow it to review specific aspects of the design of the Enos system, the intended use, and potential predicate devices, in order to clarify the requirements

for the IDE clinical study protocol, confirm the appropriate regulatory pathway, and/or understand any additional special controls which the FDA may apply.

The FDA's most recent review and response to the Company's proposed IDE clinical study general design and planning occurred in December 2018. Additional Pre-Submissions would allow the FDA to review the state of the current design of the surgical system, and the inclusion of test data and more detailed proposals for one or more clinical protocols would allow the FDA to provide additional feedback or suggest modifications if needed.

Previous results achieved by surgeons in operating prototypes in animal and cadaver studies have validated the potential for single access surgeries to be performed with the Enos system. Insights gained from these preclinical studies have directed the Company to make further product improvements. In June 2019, the Company commenced preclinical live animal and cadaver studies according to GLP for FDA submittal and subsequently, on July 18, 2019, announced the successful completion of GLP surgical procedures necessary for the planned IDE application to the FDA.

Following the completion of the GLP procedures, the Company proceeded to complete HFE studies, which included verification of production system operation with clinical experts under rigorous formal (summative) HFE studies under simulated robotic manipulation exercises. During the third quarter of 2019, the Company's Notified Body also completed audits of the Company's quality system procedures and related documentation for ISO 13485 Certification, which was ultimately received in January 2020. In September 2020, a surveillance audit of the Company's quality system was successfully completed by the Company's Notified Body.

*Development*

During the second half of 2019, the Company experienced a severe cash shortfall and as a result suspended all development work on the Enos system. Following the execution of the Medtronic License Agreement and a number of capital raises in the first half of 2020, the Company resumed development of the Enos system and commenced development work under the Medtronic Development Agreement. As part of these development efforts, Titan USA has completed an initial phase of recruitment of qualified technical personnel at its Chapel Hill, North Carolina facility. The in-house team, which presently includes six engineers with optical, mechanical, system and software expertise, complements the Company's engagement of leading medical technology development firms.

Given the ongoing uncertainty of, among other things, the Company's ability to secure required capital to fund development and operating costs in a timely manner, development timelines, regulatory processes and requirements (such as confirmatory human studies), actual costs and development times will exceed those previously set forth by the Company, including those set forth in 2019. While the Company is focused on development activities for its Enos system and under the Medtronic Development Agreement, including recruiting additional engineering and other technical personnel, an accurate estimate of the future costs of the development milestones and regulatory phases beyond the year 2021 is not possible at this time.

The Company's estimates of the costs and timelines for the development milestones of its Enos system through the fourth quarter of 2021 are set forth in the following table.

| *Milestone Number* | *Development Milestones* | *Estimated Cost (US$ million)[1]* | *Schedule for Milestone Completion* | *Comments* |
|---|---|---|---|---|
| Milestone 1 | Design, prototype and test improvements to instruments, cameras and CDU | 6.9 | Q4 2020 | Enos system related costs |
| Milestone 2 | Launch system and corporate rebranding including trademark pending logos, literature and presentation templates, and new corporate website | 0.3 | Q4 2020 | Completed |
| Milestone 3 | Iterate electromechanical design, update sterile adaptors and drape | 4.4 | Q1 2021 | Enos system related costs |
| Milestone 4 | Perform additional software development and test system performance | 4.9 | Q1-Q2 2021 | Enos system related costs |
| Milestone 5 | Perform animal lab system assessment | 0.1 | Q2 2021 | Enos system related costs |
| Milestone 6 | Perform independent lab biocompatibility testing of instruments, camera systems and accessories | 3.9 | Q2 2021 | Enos system related costs |

| *Milestone Number* | *Development Milestones* | *Estimated Cost (US$ million )[(1)]* | *Schedule for Milestone Completion* | *Comments* |
|---|---|---|---|---|
| Milestone 7 | Perform independent lab electrical safety testing for surgeon workstation and patient cart, including electromagnetic compatibility (EMC) and electromagnetic interference (EMI) tests | 1.9 | Q3 2021 | Enos system related costs |
| Milestone 8 | Perform animal feasibility or GLP study | 1.7 | Q3 2021 | Enos system related costs |
| Milestone 9 | Complete build of Enos system IDE units | 10.2 | Q4 2021 | Enos system related costs |
| Milestone 10 | Complete system verification testing | 2.1 | Q4 2021 | Enos system related costs |
| Milestone 11 | Complete HFE Summative testing | 0.9 | Q4 2021 | Enos system related costs |
| Milestone 12 | Update application for IDE as additional testing lab data is received and continue preparation for human confirmatory studies | TBD | Q1 2022 | - |
| Milestone 13 | Submit IDE application to FDA | TBD | TBD | - |
| Milestone 14 | Initiate IDE study | TBD | TBD | - |
| Milestone 15 | Complete IDE study, data analysis and final report | TBD | TBD | - |
| Milestone 16 | Submit 510(k) application to FDA | TBD | TBD | - |
| Milestone 17 | Tentative 510(k) clearance letter from FDA | TBD | TBD | - |

Note:

1. The estimated costs above include an allocation of $1.5 million per quarter of general and administrative costs.

***Recent Developments***

*Development and License Arrangements with Medtronic and Senior Secured Loan*

In June 2020, Titan established a strategic relationship with Medtronic whereby certain robotic assisted surgical technologies and intellectual property were licensed to Medtronic under the License Agreement on an exclusive basis for an upfront license payment of $10 million. The licensed intellectual property covers a subset of Titan's patent portfolio. Titan did not license, and continues to retain, all of the rights in a majority of its intellectual property including patents and patent applications covering aspects of its Enos robotic single access system workstation, user interfaces, control systems, access systems, and legacy hand controllers and instruments.

Furthermore, pursuant to the Development Agreement, certain robotic assisted surgical technologies and intellectual property are being developed by Titan under the guidance of a joint steering committee comprised of an equal number of representatives from each company. If successfully completed and verified, the developed technologies and intellectual property will be exclusively licensed to Medtronic for payments totaling up to $31 million.

Under each of the agreements with Medtronic, notwithstanding the exclusive licenses, Titan has retained world-wide rights to continue to use and commercialize the technologies and intellectual property in association with its Enos system, including establishing world-wide distribution channels. In addition, each of the companies continue to operate independently and should there be a change in control or a sale of all or substantially all of the assets of Titan, Titan may assign and transfer its rights and obligations under the agreements, including the licensed patents and retained intellectual property rights. Furthermore, either party may terminate the Development Agreement if the other party materially breaches the agreement and (if the breach is curable) fails to cure the breach within forty (40) business days after receipt of written notice.

Under the Development Agreement, the Company has received a $10 million payment for the completion of Medtronic Milestone 1 and is eligible to receive additional payments totaling up to $21 million on the successful completion of Medtronic Milestone 3 and Medtronic Milestone 4. The payments are to be made as the respective technology milestones are completed and verified and are further itemized in the table below.

| **Milestone** (1) | **Deadline** (2) | **Payment**(3) | **Comments** |
|---|---|---|---|
| Medtronic Milestone 1 | Four (4) months from Development Start Date (4) | $10,000,000 | Complete |
| Medtronic Milestone 2 (5) | Four (4) months from Development Start Date | - | Complete |
| Medtronic Milestone 3 | Six (6) months from the later of (a) receipt by the Company of Payment for Medtronic Milestone 1, (b) receipt by the Company from Medtronic of Medtronic deliverables required for Medtronic Milestone 3, and (c) receipt by the Company from Medtronic of confirmation of certain due diligence in respect of the Company's deliverables for Medtronic Milestone 1 | $10,000,000 | - |

| **Milestone** [(1)] | **Deadline** [(2)] | **Payment**[(3)] | **Comments** |
|---|---|---|---|
| Medtronic Milestone 4 | Four (4) months from the later of (a) receipt by the Company of Payment for Medtronic Milestone 3, (b) receipt by the Company of Medtronic deliverables for Medtronic Milestone 4, and (c) receipt by the Company from Medtronic of confirmation of certain due diligence in respect of the Company's deliverables for Medtronic Milestone 3 | $11,000,000 [(6),(7)] | - |

Notes:

1. Medtronic Milestone 1, Medtronic Milestone 3, and Medtronic Milestone 4 are each defined in the Development Agreement and consist of the completion of the development of certain robotic assisted surgical technologies as described in the Development Agreement.
2. All as further described and qualified in the Development Agreement.
3. Each payment is conditional upon the corresponding milestone being completed on a timely basis.
4. "Development Start Date" means June 12, 2020.
5. Medtronic Milestone 2 is a non-technology milestone defined as the Company raising at least $18,000,000 of capital between the effective date of the Development Agreement and the date that is four months from the Development Start Date. The Company has met this milestone.
6. The amount of the payment will be the sum of $10,000,000 and the amount of certain legal, transaction and intellectual property related expenses to be paid to the Company up to a maximum of $1,000,000 pursuant to the Development Agreement and License Agreement.
7. The balance outstanding under the Medtronic Loan (described below) will be offset against the payment for Medtronic Milestone 4.

On April 28, 2020, the Company received a $1.5 million senior secured loan (the "Medtronic Loan") from an affiliate of Medtronic ("Medtronic Lender") and secured by way of the security agreement ("Security Agreement") executed and delivered by the Company in favor of the Medtronic Lender. The Medtronic Loan is evidenced by an amended and restated senior secured promissory note ("Note") dated June 3, 2020, in the principal amount of $1.5 million plus $132,000 equal to certain legal, transaction and intellectual property related expenses incurred by Medtronic pursuant to the Medtronic agreements and will bear interest at the rate of 8% per annum. The unpaid principal balance owing under the Note, together with any accrued and unpaid interest and all other unpaid obligations under the Note, shall be due and payable in full on the earliest to occur of: (i) June 3, 2023, (ii) a Change of Control (as defined in the Note), or (iii) the completion of the last milestone under the Development Agreement. Until repayment of the loan, Medtronic may have one non-voting observer attend meetings of the Company's Board of Directors.

*Medtronic Senior Security*

The Security Agreement granted a security interest in all of the Company's present and future property including all personal property, inventory, equipment and intellectual property to the Medtronic Lender. In addition, Medtronic's rights and powers include without limitation (a) exercising and enforcing all rights and remedies of a holder of collateral as if Medtronic were the absolute owner of the collateral, (b) collection of any proceeds arising in respect of all of the Company's property pledged as security for the loan, (c) license or sublicense, whether on an exclusive or non-exclusive basis, of any of the Company's intellectual property for such term and on such conditions and in such manner as Medtronic in its sole judgment determines (taking into account such provisions as may be necessary to protect and preserve such intellectual property), and (d) the right to enforce its security in the event of a default which may include the appointment of a receiver by instrument or order of the court.

*Naglreiter Settlement Agreement*

On June 8, 2020, the Company entered into a settlement agreement with Naglreiter Consulting, LLC ("Naglreiter") to settle claims in a lawsuit pending in the United States District Court for the Southern District of Florida. Under the terms of the settlement agreement, the Company paid Naglreiter the sum of $1,050,000 and Naglreiter returned to the Company certain personal property and related electronic data in its possession, and the pending litigation was dismissed.

*Supplier Agreement*

On April 30, 2020, the Company reached an agreement with one of the product development firms (the "Supplier") engaged by the Company for the payment of outstanding payables to be settled in full by the end of 2020. On October 13, 2020, the Company entered into a second agreement with the Supplier, pursuant to which the Supplier has extended the time for payment of the outstanding amounts owed by the Company to the end of the first quarter of 2021.

*Nasdaq Requirements*

On August 5, 2020, the Company received notification from Nasdaq that, based on the closing bid price of its common shares for the last 30 consecutive business days, it was not in compliance with the requirement to maintain a minimum bid price of $1 per share. The Nasdaq listing rules provide the Company a period of 180 calendar days in which to regain compliance with this requirement. If at any time during this 180-day period the closing bid price of the Company's security is at least $1 for a minimum of 10 consecutive business days, the Company will have regained compliance. If the Company is not able to cure this deficiency within the time provided, it may be subject to delisting. See *"Forward-Looking Statements – Nasdaq"*.

*New Branding Initiative*

On September 21, 2020, the Company announced the launch of a new name and brand identity for its robotic surgical system under development, the Enos robotic single access surgical system. During the coming weeks, the Company will gradually transition to the new Enos brand identity, including on its website and in presentations and other corporate material. Along with the change to the identity of its surgical system, the Company will transition to an updated corporate brand identity that, while retaining the Titan Medical name, complements the Enos robotic single access surgical system.

Enos, translated from the Greek language, has the meaning "of one," which aligns well with Titan's commitment to single access surgery. Working with an industry-leading branding team, the Company determined that while it should retain its corporate name as a valuable asset, the use of "SPORT" as an identity for its surgical system did not accurately reflect the Company's values and beliefs and the uniqueness of its technology.

***Overall Performance***

During the nine months ended September 30, 2020, the Company secured capital through issuances of equity, a senior secured loan and receipt of license payments from Medtronic. These cash inflows have allowed the Company to resume development activities through its subsidiary Titan USA, which began recruiting an in-house technical team to staff its new facility in Chapel Hill, North Carolina, while continuing to engage existing and new technical partners to support development plans.

In addition to resuming the development program relating to its Enos system, the Company is now engaged in an additional development program pursuant to the Medtronic Development Agreement. The Company has sufficient cash on hand to satisfy expected costs associated with the deliverables under Medtronic Milestone 3 and upon receipt of the $10 million license payment associated with Medtronic Milestone 3, it expects to have sufficient cash to satisfy the costs associated with Medtronic Milestone 4, as well as to satisfy the repayment of the Note when it becomes due (see "*Recent Developments*"). However, the Company will require additional funding to complete development of its Enos system.

Following the resumption of development activities related to the Enos system in June 2020, the Company completed design enhancements to its multi-articulating instruments and end-effectors in view of the opportunities for improvements, with laboratory testing of prototypes to verify the improved design to follow. Further clinically inspired requirements for improvements to other aspects of the surgical system are being evaluated with the overall goal of improving operating efficiencies while aiming to reduce manufacturing costs. In particular, opportunities for improvement to the interfaces between the instruments, camera systems, and associated sterile interfaces to the CU of the patient cart are being considered. Based on the recent and anticipated improvements to the system and potential changes to the FDA requirements for data to be included in the IDE application, the Company is considering the need for further GLP and HFE preclinical studies in order to demonstrate the safety and performance of the system prior to proceeding with IDE clinical studies.

During the nine months ended September 30, 2020, the Company raised aggregate gross proceeds of approximately $23,260,783 from financings ($20,976,485 net of closing costs and cash commissions), $1,480,925 from the exercise of 6,217,939 warrants, and $1,150 from the conversion of 11,500,000 common share equivalents. The Company also received a loan from the Medtronic Lender in the amount of $1,500,000, evidenced by an 8% senior secured promissory note.

During the three months ended September 30, 2020, the Company generated no revenue other than interest income on its cash deposits, resulting in a net and comprehensive loss of $1,640,633, which included research and development expenditures of $2,265,975, and a gain on change in the fair value of warrants of $2,872,069.

During the three months ended September 30, 2019, the Company generated no revenue other than interest income on its cash deposits, resulting in a net and comprehensive loss of $1,564,196, which included research and development expenditures of $16,570,480, and a gain on change in fair value of warrants of $16,887,802.

During the nine months ended September 30, 2020, the Company received a $10 million license payment pursuant to the License Agreement (See "*Recent Developments*"), and had a net and comprehensive loss of $3,551,875, which included research and development expenditures of $2,433,557 and a loss on change in the fair value of warrants of $4,793,375. During the same period, the Company had a gain on settlement of legal action of $1,839,626 (See "*Recent Developments – Supplier Settlement Agreement"*).

The Company has shareholders' equity of $3,719,174 including a net and comprehensive loss for the nine months ended September 30, 2020 of $3,551,875.

During the nine months ended September 30, 2019, the Company generated no revenue other than interest income on its cash deposits, resulting in a net and comprehensive loss of $44,319,942,

which included research and development expenditures of $49,339,766 and a gain on change in fair value of warrants of $13,021,129.

The Company had a decrease in net cash flows of $4,013,843 for the three months ended September 30, 2020. This resulted from a use of cash from operating activities of $4,579,760, cash provided by financing activities of $717,707 from the issuance of equity and repayment of lease liabilities, and cash used in investing activities of $151,790 from additions to patents and purchase of property, plant and equipment.

The Company had a decrease in net cash flows of $9,149,798 for the three months ended September 30, 2019. This resulted from a use of cash in operating activities of $11,563,993, cash provided by financing activities of $2,582,885 from the issuance of equity; and cash used in investing activities of $168,690 from additions to patents.

The Company had an increase in net cash flows of $23,861,421 for the nine months ended September 30, 2020. This resulted from a use of cash from operating activities of $840,397 (including license fee revenue recognition of $10,000,000 under the License Agreement), cash from financing activities of $24,957,168 from the issuance of equity, repayment of lease liabilities, and proceeds relating to the Medtronic Loan of $1,500,000, and cash used in investing activities of $255,350 from additions to patents and purchase of property, plant and equipment.

The Company had a decrease in net cash flows of $10,300,858 for the nine months ended September 30, 2019. This resulted from a use of cash from operating activities of $43,911,008, cash from financing activities of $33,957,796 from the issuance of equity, and cash used in investing activities of $347,646 from additions to patents.

***Summary of Quarterly Results***

The following is selected financial data for each of the eight most recently completed quarters, derived from the Company's Interim Financial Statements, and calculated in accordance with IFRS. Net and comprehensive loss figures include the effects of adjustments in the valuation of outstanding warrant liability.

| | For the three months ended | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | September 30 2020 | June 30 2020 | March 31 2020 | December 31 2019 | September 30 2019 | June 30 2019 | March 31 2019 | December 31 2018 |
| Net Sales | | $10,000,000 | - | - | - | - | - | - |
| Net and Comprehensive Loss from Operations | $1,640,633 | $1,143,199 | $768,043 | $2,412,863 | $1,564,196 | $14,472,866 | $28,282,880 | $8,410,702 |
| Basic and Diluted Loss per Share | $0.02 | $0.02 | $0.02 | $0.07 | $0.05 | $0.46 | $1.22 | $0.41 |

Significant changes in key financial data from the three and nine months ended December 31, 2019 through the nine months ended September 30, 2020 reflect the revenue recognition of the license payment pursuant to the Medtronic License Agreement as well as the previous suspension of development of the Company's single access robotic surgical system while the Company sought additional capital. Also impacting these changes 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 third quarter of 2020, the Company had net and comprehensive loss of $1,640,633 compared to a net and comprehensive loss of $1,564,196 for the same period in 2019. The change primarily relates to research and development expenses of $2,265,975 in the third quarter of 2020 compared to $16,570,480 in the same quarter of the prior year, offset by a reduction in the gain in the change in fair value of warrants to $2,872,431 in the third quarter of 2020 from $16,887,802 in the same quarter of the prior year.

***Liquidity and Capital Resources***

The Company has traditionally been reliant on funding from its equity offerings and from interest income on its cash balances. In June 2020, the Company earned $10 million in license revenue pursuant to the License Agreement with Medtronic. In October 2020, the Company received an additional $10 million license payment associated with the completion of Medtronic Milestone 1, pursuant to the Development Agreement. The Company will become eligible to receive additional payments totaling up to $21 million following the successful completion of Medtronic Milestones 3 and 4 forecasted for the second and third quarters of 2021, respectively. The Company estimates that it currently has sufficient cash to fund development work required through to achieve Medtronic Milestone 3.

Based on the assumption that Medtronic Milestones 3 and 4 will be completed as planned, the Company will be entitled to receive payments of $10 million and $11 million, respectively, in connection with those milestones, and it estimates that it would then have sufficient cash required for development, to satisfy its current outstanding obligations and to pay operating expenses to the end of third quarter 2021. The Company remains dependent on equity financing for additional funding required to complete its development plans for its Enos system.

During the nine months ended September 30, 2020, the Company raised aggregate gross proceeds of approximately $23,260,783 from financings ($20,976,485 net of closing costs and cash commissions), $1,480,925 from the exercise of 6,217,939 warrants, and $1,150 from the conversion of 11,500,000 common share equivalents. The Company also received a loan from the Medtronic Lender in the amount of $1,500,000 evidenced by an 8% senior secured promissory note.

At September 30, 2020, the Company had cash and cash equivalents on hand of $24,675,913 and accounts payable and accrued liabilities, including the current portion of lease liabilities, of $7,638,801 (excluding warrant liability), compared to $814,492 and $11,412,896 respectively, at December 31, 2019. The Company's working capital at September 30, 2020 was $16,523,569, excluding warrant liability, compared to a working capital deficit of $9,684,525 at December 31, 2019.

As at the most recent month end of October 31, 2020, the Company had cash and cash equivalents on hand of $32,768,357 and working capital of $24,837,008.

The Company has the following contractual obligations:

| **Contractual Obligations existing at the date of this MD&A** | **Total $** | **Less than 1 year** | **1 – 3 years** | **4 – 5 years** | **After 5 years** |
|---|---|---|---|---|---|
| Capital Leases | 500,433 | 114,908 | 312,431 | 73,094 | -- |
| Note Payable[(1)] | 1,686,730 | 1,686,730 | - | -- | -- |
| Supplier Agreement | 5,985,133 | 5,985,133 | -- | -- | -- |
| Purchase Order Commitments | 13,222,884 | 13,222,884 | -- | -- | -- |
| **Total Contractual Obligations** | **21,395,180** | **21,009,665** | **312,413** | **73,094** | -- |

Note 1: On April 28, 2020, the Company issued the Note to an affiliate of Medtronic for the Medtronic Loan and executed and delivered the Security Agreement. The Note is in the principal amount of $1.5 million plus $132,000 equal to certain legal, transaction and intellectual property related expenses incurred by Medtronic pursuant to the Medtronic agreements plus $54,730 of accrued interest. See "*Recent Developments*".

The table below sets forth the Company's warrants (by series) that were previously issued, and which remain outstanding as of the date of this MD&A.

| | Issue Date | Expiry Date | Number Issued | Number Outstanding | Exercise Price US $ | Exercise Price CDN $ |
|---|---|---|---|---|---|---|
| TMD.W.T.F | 16-Nov-15 | 16-Nov-20 | 233,740 | 233,740 | | 48.00 |
| TMD.W.T.G | 12-Feb-16 | 12-Feb-21 | 389,027 | 386,694 | | 30.00 |
| TMD.W.T.G | 23-Feb-16 | 12-Feb-21 | 58,226 | 58,226 | | 30.00 |
| TMD.W.T.H | 31-Mar-16 | 31-Mar-21 | 501,831 | 501,831 | | 36.00 |
| TMD.W.T.H | 14-Apr-16 | 31-Mar-21 | 75,275 | 75,275 | | 36.00 |
| TMD.W.T.I | 20-Sep-16 | 20-Sep-21 | 569,444 | 569,444 | | 22.50 |
| TMD.W.T.I | 27-Oct-16 | 20-Sep-21 | 67,667 | 67,667 | | 22.50 |
| Not Listed | 16-Mar-17 | 16-Mar-21 | 357,787 | 355,253 | | 15.00 |
| Not Listed | 29-Jun-17 | 29-Jun-22 | 1,612,955 | 75,810 | | 6.00 |
| Not Listed | 21-Jul-17 | 29-Jun-22 | 370,567 | 370,567 | | 6.00 |
| Not Listed | 24-Aug-17 | 24-Aug-22 | 563,067 | 563,067 | | 6.00 |
| Not Listed | 05-Dec-17 | 05-Dec-22 | 1,533,333 | 1,533,333 | | 18.00 |
| Not Listed | 10-Apr-18 | 10-Apr-23 | 1,126,665 | 1,126,665 | | 10.50 |
| Not Listed | 10-May-18 | 10-Apr-23 | 168,889 | 168,889 | | 10.50 |
| Not Listed[1] | 10-Aug-18 | 10-Aug-23 | 7,679,574 | 6,661,068 | 2.920 | |
| Not Listed[2] | 21-Mar-19 | 21-Mar-24 | 8,455,882 | 8,455,882 | 3.950 | |
| Not Listed | 27-Mar-20 | 27-Mar-25 | 3,500,000 | - | 0.190 | |
| Not Listed | 06-May-20 | 06-Nov-25 | 2,757,252 | - | 0.300 | |
| Not Listed | 10-Jun-20 | 10-Jun-24 | 9,000,000 | 9,000,000 | 1.000 | |
| | | | 39,021,181 | 30,203,411 | | |

Note 1 - Includes a ratchet clause triggered August 29, 2019 lowering the exercise price from $3.20 to $2.92.
Note 2 - Includes a ratchet clause triggered August 29, 2019 lowering the exercise price from $4.00 to $3.95.

## *Financings*

### *Offerings During Q2 2020*

*June 2020 Financing*

On June 10, 2020, the Company completed a registered offering of 6,500,000 common shares (the "Common Shares"), 11,500,000 common share equivalents (each, a "June 2020 Common Share Equivalent") and 9,000,000 Common Share purchase warrants (each a "June 2020 Common Warrant") for total gross proceeds of approximately $18,000,000 ($16,500,000 net of closing cash costs including cash commissions described below). The Common Shares, June 2020 Common Share Equivalent and June 2020 Common Warrants were sold in fixed combinations at an offering price of $1.00, consisting of one Common Share and one-half June 2020 Common Warrant or one June 2020 Common Share Equivalent and one-half June 2020 Common Warrant. Each June 2020 Common Warrant is exercisable to purchase one Common Share at an exercise price of $1.00 per Common Share for a period of four (4) years following the date of the closing of the offering. Each June 2020 Common Share Equivalent is convertible to one Common Share at a conversion price of $0.0001 and will expire when exercised in full.

Pursuant to the placement agent agreement entered into in respect of the offering, in addition to the cash commission of $1,260,000, broker warrants were issued to the placement agent which

entitle the holder to purchase 1,260,000 Common Shares at an exercise price of $1.25 per share prior to expiry on June 10, 2024.

*May 2020 Financing*

On May 6, 2020, the Company completed a registered direct offering of 5,514,50 Common Shares of the Company at an offering price of US $0.36268 per Common Shares and 2,757,252 unregistered Common Shares purchase warrants, resulting in gross proceeds of $2,000,000 ($1,613,800 net of estimated closing cash costs including cash commission described below). Each warrant is exercisable to purchase one Common Shares at an exercise price of US $0.3002 per Common Shares for a period of five and one-half (5.5) years following the date of closing of the offering.

Pursuant to the placement agency agreement entered into in respect of the offering, in addition to the cash commission of $140,000, broker warrants were issued to the placement agent which entitle the holder to purchase 386,015 common shares at a price of US $0.45335 per share prior to expiry on November 6, 2025.

*Senior Secured Loan from Medtronic*

On April 28, 2020, the Company received gross proceeds of $1.5 million from the Medtronic Loan from an affiliate of Medtronic evidenced by the Note and secured by way of the Security Agreement executed and delivered by the Company in favor of the Medtronic Lender. The Note, which was amended and restated on June 3, 2020, matures on June 3, 2023 and the unpaid principal balance owing under the Note, together with any accrued and unpaid interest and all other unpaid obligations under the Note, shall be due and payable in full on the earliest to occur of: (i) June 3, 2023, (ii) a Change of Control (as defined in the Note), or (iii) the completion of the last milestone under the Development Agreement. Please also see above under "*Recent Developments – Development and License Arrangements with Medtronic and Senior Secured Loan*".

***Offerings During Q1 2020***

*March 2020 Financing*

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 at a per share purchase price of $0.17 per Common Share and 3,500,000 Common Share purchase warrants, resulting in total gross proceeds of approximately $1.2 million ($0.862 million net of closing costs including cash commission described below). Each whole warrant is exercisable to purchase one Common Share at an exercise price of $0.19 per Common Share for a period of five years following the date of closing of the offering. The warrants were valued at $475,300 based on the value determined by the Black-Scholes model and the balance of $714,700 was allocated to common shares.

Pursuant to the placement agency agreement entered into in respect of the offering, in addition to the cash commission of $83,300, broker warrants were issued to the placement agent which entitle the holder to purchase 490,000 Common Shares at a price of $0.2125 per share prior to expiry on March 25, 2025.

*December 2019 Common Share Purchase Agreement*

From January 3, 2020 to the date of this report, the Company raised $2,071,930 through the sale of 4,408,048 Common Shares to an investor in accordance with the terms of a common share purchase agreement dated December 23, 2019 between the Company and the investor, under which the investor committed to purchase up to $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.

*Share issuance to Contract Development Firm*

On January 3, 2020, a development firm engaged by the Company purchased from the Company 501,148 common shares at a price of $0.50 per share and the purchase price was satisfied by way of the development firm setting off $250,574 owing the Company to the development firm for services it had previously rendered.

**Comparison of Anticipated versus Actual Use of Proceeds from Financings**

The following table sets forth the variances, if any, between the anticipated and actual use of proceeds from the Company's financings completed in the current financial year.

| **Date of Financing** | **Anticipated Use of Proceeds** | **Actual Use of Proceeds** |
|---|---|---|
| March 25, 2020 | General corporate purposes including resuming the development of the single access robotic surgical system, instruments, and accessories; funding working capital (including the reduction of outstanding payables); and capital expenditures. | As anticipated. |
| May 6, 2020 | General corporate purposes including resuming the development of the single access robotic surgical system, instruments, and accessories; funding working capital (including the reduction of outstanding payables); and capital expenditures. | As anticipated. |
| June 10, 2020 | General corporate purposes including resuming the development of the single access robotic surgical system, instruments, and accessories; funding working capital (including the reduction of outstanding payables); and capital expenditures. | As anticipated. The majority of the proceeds are still available for future periods. The Company does not anticipate alternative use of these proceeds. |

***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 | 82,184,843 |
| Stock options[(1)] | 2,362,163 |
| Warrants | 30,203,411 |
| Broker warrants[(2)] | 2,131,716 |

Notes:

(1) The Company has outstanding options enabling certain employees, directors, officers, and consultants to purchase common shares:
- 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.
- On July 30, 2020, the Company issued 22,425 stock options with an exercise price of CDN $1.266 to a director in exchange for services rendered. The options vest immediately and have a contractual life of 7 years.
- On July 30, 2020, the Company issued 1,350,000 stock options with an exercise price of US $0.962 to certain employees for services rendered. These options vest 25% annually over four years.
- On September 29, 2020, the Company issued 27,304 stock options with an exercise price of CDN $0.96 to a director in exchange for services rendered. The options vest immediately and have a contractual life of 7 years.
- On September 29, 2020, the Company issued 19,568 stock options with an exercise price of US $0.73 to a director in exchange for services rendered. The options vest immediately and have a contractual life of 7 years.
- On September 30, 2020, the Company issued 4,723 stock options with an exercise price of US $0.745 to a consultant. The options vest immediately and have a contractual life of 3 years.

(2) A total of 2,131,716 broker warrants previously issued in connection with offerings of securities by the Company in March 2019, March 2020, May 2020 and June 2020 offerings remain outstanding:

- 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.
- Pursuant to the agency agreement in respect of the March 2020 offering, in addition to the cash commission paid to the agents, 490,000 broker warrants were issued to the agents. Each broker warrant entitles the holder thereof to acquire one common share at the price of US $0.2125 for a period of 5 years following the closing date.
- Pursuant to the agency agreement in respect of the May 2020 offering, in addition to the cash commission paid to the agents, 386,015 broker warrants were issued to the agents. Each broker warrant entitles the holder thereof to acquire one common share at the price of US $0.4534 for a period of five and one half (5.5) years following the closing date.
- Pursuant to the agency agreement in respect of the June 2020 offering, in addition to the cash commission paid to the agents, 1,260,000 broker warrants were issued to the agents. Each broker warrant entitles the holder thereof to acquire one common share at the price of US $1.25 for a period of four years following the closing date.

### *Accounting Policies*

The accounting policies set out in the notes to the Interim Financial Statements for the three and nine months ended September 30, 2020 and the audited financial statements for the years ended December 31, 2019 have been applied in preparing the Interim Financial Statements for the three and nine months ended September 30, 2020, and the comparative information presented in the Interim Financial Statements for the three and nine months ended September 30, 2019.

The preparation of financial statements in conformity with IAS 34, Interim Financial Reporting, 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 measurement of stock-based compensation, the fair value estimate of the initial

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

The Interim Financial Statements for the three and nine months ended September 30, 2020 have been prepared in accordance with accounting principles applicable to a going concern, which contemplates that the Company will be able to realize its assets and settle its liabilities as they come due during the normal course of operations for the foreseeable future.

The Company currently does not generate any revenue (other than from its agreements with Medtronic, see "*Recent Developments – Development and License Arrangements with Medtronic and Senior Secured Loan*" and interest income on its cash balances) and accordingly, it is primarily dependent upon equity financing for any additional funding required to complete its research and development relating to its single access robotic surgical system and operating expenses. While the Company is primarily dependent on equity financing for any additional funding required to complete its development plans, the Company currently has sufficient cash flow to meet its obligations over the next 12-month period. If additional funding is not available, the pace of the Company's development plan for its Enos system may be reduced.

**(a) Revenue recognition**

The Company currently recognizes revenue when it has persuasive evidence of a contract, performance obligations have been identified and satisfied, payment terms have been identified, and it is probable that the Company will collect the consideration it is entitled to. On June 3, 2020, the Company entered into a License Agreement with a U.S. affiliate of Medtronic, whereby the Company is providing exclusive access to certain intellectual property rights relating to robotic assisted surgical technologies. The Company is accounting for the license fee at the point in time when the rights were transferred.

- Revenue from the License Agreement for intellectual property rights and know-how ("Royalty Payment") is recognized when rights are granted and customer acceptance is established. Compensation received for the performance of technology transfer services relating to the License Agreement is accounted for separately from the Royalty Payment and will be recognized at the time the service is performed.

- Revenue from the Development Agreement and the allocation of ownership and license rights developed under each milestone is recognized when the rights are granted and customer acceptance is established.

- Under the terms of the Development Agreement, payment is dependent on when the customer confirms completion of each milestone as defined. Due to the uncertainty of milestone achievements and entitlement of payments, the Company recognizes revenue only upon acceptance by the customer of work performed and the milestone achieved.

**(b) 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.

## (c) 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 March 21, 2019, March 2020 and June 2020 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 September 30, 2020 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 quarter ended September 30, 2020, 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 Quarter ended September 30, 2020*

*Completion of Medtronic Milestone*

On October 26, 2020, the Company announced that it had completed Medtronic Milestone 1, the first technical milestone under the Development Agreement, and subsequently on October 28, 2020, the Company received a $10 million license payment. The Company's entitlement to receive up to an additional $21 million pursuant to the Development Agreement is conditional upon the completion of Medtronic Milestones 3 and 4 set forth in the Development Agreement (see "*Forward Looking Statements – Development Agreement & License Agreement with Medtronic*").

*Supplier Agreement*

On April 30, 2020, the Company reached an agreement with the Supplier engaged by the Company for the payment of outstanding payables to be settled in full by the end of 2020. On October 13, 2020, the Company entered into a second agreement with the Supplier, pursuant to which the Supplier has extended the time for payment of the outstanding amounts owed by the Company to the end of the first quarter of 2021 (see "*Recent Developments – Supplier Agreement*").

Pursuant to the second agreement, the Company will pay a monthly amount of $250,000 from October through December 2020, a lump sum payment of $2,924,876 by December 31, 2020, and a monthly amount of $750,000 from January to March 2021. These payments will be applied toward settling the outstanding amounts owed. Provided the payments are made in accordance with the second agreement, no further interest will accrue on the outstanding amounts after December 2020, and $673,000 of accrued interest will be forgiven in March 2021.

*Office Lease*

On October 16, 2020, Titan USA entered into a lease amending agreement with a third party to lease certain office space in Chapel Hill, North Carolina. The term of the amended lease is 55 months, and the average base monthly rent is $10,628. Upon commencement on November 1, 2020, the Company shall recognize a right of use asset and a lease liability as required under IFRS 16.

*Common Stock Issued*

Subsequent to September 30, 2020, 39,313 common shares were issued upon the exercise of warrants for gross proceeds of $11,802, and 526,210 common shares were issued upon the exercise of March 2020 and May 2020 broker warrants for gross proceeds of $189,464.

## ***Outlook***

During the nine months ended September 30, 2020, the Company earned revenue and secured capital in an amount that it believes is sufficient to resume product development, but not enough to complete product development and regulatory submission plans for its Enos system. Therefore, the Company is prioritizing its present plans on first achieving the deliverables required to satisfy the criteria for license payments to be received pursuant to the Development Agreement with Medtronic, and then, selectively implementing certain design enhancements to its Enos surgical system, instruments, cameras and accessories.

Pending receipt of sufficient additional capital over the course of the next twelve months, the Company expects to implement improvements to its instruments, end-effectors and cameras, and related modifications to the central unit of the patient cart, and complete software development for its Enos system. In addition, the Company intends to confirm with the FDA the relevant regulatory pathway through the Pre-Submission process, and initiate planning for the implementation of its IDE clinical studies.

Additional information relating to the Company, including Titan's Annual Report for the 2019 fiscal year, is available on SEDAR at www.sedar.com and on EDGAR at www.sec.gov.