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

Form 6-K

REPORT OF FOREIGN PRIVATE ISSUER PURSUANT TO RULE 13a-16 OR 15d-16
UNDER THE SECURITIES EXCHANGE ACT OF 1934

For the month of February, 2021.

Commission File Number: **001-38524**

Titan Medical Inc.

(Exact Name of Registrant as Specified in Charter)

155 University Avenue, Suite 750
Toronto, Ontario M5H 3B7
Canada
(Address of principal executive offices)

Indicate by check mark whether the registrant files or will file annual reports under cover Form 20-F or Form 40-F.
Form 20-F ☐ Form 40-F ☒

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(1):____

Note: Regulation S-T Rule 101(b)(1) only permits the submission in paper of a Form 6-K if submitted solely to provide an attached annual report to security holders.

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(7): ____

Note: Regulation S-T Rule 101(b)(7) only permits the submission in paper of a Form 6-K if submitted to furnish a report or other document that the registrant foreign private issuer must furnish and make public under the laws of the jurisdiction in which the registrant is incorporated, domiciled or legally organized (the registrant's "home country"), or under the rules of the home country exchange on which the registrant's securities are traded, as long as the report or other document is not a press release, is not required to be and has not been distributed to the registrant's security holders, and, if discussing a material event, has already been the subject of a Form 6-K submission or other Commission filing on EDGAR.

Exhibits 99.1 and 99.2 to this Current Report on Form 6-K will be deemed to be incorporated by reference into the Registrant's Form F-3 registration statement filed on July 30, 2019 (File No. 333-232898) and Form S-8 registration statements filed on February 12, 2019 and July 20, 2020 (File Nos. 333-229612 and 333-240018) (collectively, the "Registration Statements"), and Exhibits 23.1, 101.INS, 101.SCH, 101.CAL, 101.DEF, 101.LAB and 101.PRE are hereby incorporated by reference as exhibits to the Registration Statements.

SIGNATURE

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

TITAN MEDICAL INC.
(Registrant)

Date: February 22, 2021

By: */s/ Monique L. Delorme*
Name: Monique L. Delorme
Title: Chief Financial Officer

EXHIBIT INDEX

99.1	Audited Financial Statements for the fiscal year ended December 31, 2020
99.2	MD&A for the fiscal year ended December 31, 2020
99.3	Certification of annual filings – CEO
99.4	Certification of annual filings – CFO
99.5	News Release dated February 22, 2020
23.1	Consent of BDO Canada LLP
101.INS	XBRL Instance Document
101.SCH	XBRL Taxonomy Extension Schema
101.CAL	XBRL Taxonomy Extension Calculation Linkbase
101.DEF	XBRL Taxonomy Extension Definition Linkbase
101.LAB	XBRL Taxonomy Extension Labels Linkbase
101.PRE	XBRL Taxonomy Extension Presentation Linkbase

Exhibit 23.1

Consent of Independent Registered Public Accounting Firm

Titan Medical Inc.
Toronto, Canada

We hereby consent to the incorporation by reference in the Registration Statement on Form F-3 (File No. 333-232898), and Registration Statements on Form S-8 (File No. 333-229612 and File No. 333-240018) of Titan Medical Inc. of our report dated February 20, 2021 relating to the consolidated financial statements, which appears in Exhibit 99.1 to Titan Medical's Report on Form 6-K filed on February 22, 2021.

"signed"

BDO Canada LLP
Toronto, Canada

February 22, 2021

Exhibit 99.1

TITAN MEDICAL INC.
Consolidated Financial Statements
Years Ended December 31, 2020, and 2019

(IN UNITED STATES DOLLARS)

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

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

Report of Independent Registered Public Accounting Firm

Shareholders of Titan Medical Inc.
Toronto, Ontario

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated statements of financial position of Titan Medical Inc. (the "Company") as of December 31, 2020 and 2019, the related consolidated statements of net and comprehensive loss, shareholders' deficit, and cash flows for the years ended December 31, 2020 and 2019, and the related notes (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company at December 31, 2020 and 2019, and the results of its operations and its cash flows for the years ended December 31, 2020 and 2019, in conformity with International Financial Reporting Standards (IFRSs) as issued by International Accounting Standards Board ("IASB").

Basis for Opinion

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's consolidated financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) ("PCAOB") and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion.

Our audits included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

(signed) BDO Canada LLP

Chartered Professional Accountants, Licensed Public Accountants

Toronto, Canada
February 20, 2021

We have served as the Company's auditor since 2010.

TITAN MEDICAL INC.
Consolidated Statements of Financial Position
As at December 31, 2020 and 2019
(In U.S. Dollars)

	Note	December 31, 2020	December 31, 2019
Assets			
Current Assets:			
Cash and cash equivalents		$ 25,468,805	$ 814,492
Amounts receivable		71,566	84,097
Deposits		765,599	481,400
Prepaid expense		642,214	369,453
Total Current Assets		$ 26,948,184	$ 1,749,442
Property, plant, and equipment	3	245,372	-
Right of use assets - leases	4	866,601	30,394
Patent rights	5	1,777,978	1,601,745
Total Assets		**$ 29,838,135**	**$ 3,381,581**
Liabilities			
Current Liabilities:			
Accounts payable and accrued liabilities	6	$ 4,528,890	$ 11,412,896
Current portion of lease liability	4	165,768	21,071
Note payable	7	1,885,497	$ -
Warrant liability	8	36,316,681	3,621,444
Total Current Liabilities		**$ 42,896,836**	**$ 15,055,411**
Long-term lease liability	4	750,791	8,001
Total Liabilities		**$ 43,647,627**	**$ 15,063,412**
Shareholders' Deficiency			
Share capital	9	$ 215,819,053	$ 194,859,415
Contributed surplus		9,400,885	8,303,527
Deficit		(239,029,430)	(214,844,773)
Shareholders' Deficiency		**$ (13,809,492)**	**$ (11,681,831)**
Total Liabilities and Deficiency		**$ 29,838,135**	**$ 3,381,581**

Commitments (Note 11)
Subsequent events (Note 17)
See notes to the consolidated financial statements

Approved on behalf of the Board:

"signed"
Paul Cataford
Director

"signed"
David McNally
Chairman and CEO

TITAN MEDICAL INC.
Consolidated Statements of Net and Comprehensive Loss
For the Years Ended December 31, 2020 and 2019
(In U.S. Dollars)

	Note	December 31, 2020	December 31, 2019
Revenue		$ 20,000,000	**$ -**
Expenses			
Amortization		$ 236,842	$ 32,555
Consulting fees		536,968	1,136,146
Foreign exchange loss (gain)		113,972	37,972
Impairment of patent rights	5	45,981	-
Insurance		698,961	480,362
Interest charges		1,091,216	422,989
Management salaries and fees		2,549,924	2,547,484
Marketing and investor relations		140,976	289,350
Office and general		385,163	436,051
Professional fees		2,150,958	943,535
Rent		41,320	58,064
Research and development		7,937,171	51,418,056
Stock based compensation	9 b	1,097,358	1,651,119
Travel		27,622	272,594
		$ 17,054,432	$ 59,726,277
Net Earnings (Loss) from Operations		**2,945,568**	**(59,726,277)**
Finance Income (Cost)			
Interest received from investments		$ 29,143	$ 115,584
Gain on settlements	6	2,512,626	-
Gain (loss) on change in fair value of warrants	8	(27,855,678)	19,800,645
Warrant liability issue cost		(1,816,316)	(2,097,031)
		$ (27,130,225)	$ 17,819,198
Net and Comprehensive Loss		**$ 24,184,657**	**$ 41,907,079**
Basic and Diluted Loss per Share		**$ 0.36**	**$ 1.37**
Weighted Average Number of Common Shares Basic and Diluted		**67,008,897**	**30,689,545**

See notes to the consolidated financial statements

TITAN MEDICAL INC.
Consolidated Statements of Shareholders' Deficit
For the Years Ended December 31, 2020 and 2019
(In U.S. Dollars)

	Note	Share Capital Number	Share Capital Amount	Contributed Surplus	Deficit	Total Deficiency
Balance - December 31, 2018		21,675,849	$ 170,502,394	$ 6,652,409	$ (172,937,694)	$ 4,217,109
Issued pursuant to agency agreement	9 a	8,455,882	13,717,131	-	-	13,717,131
Issued pursuant to private placements	9 a	8,757,444	5,727,971	-	-	5,727,971
Share issue expense		-	(2,090,124)	-	-	(2,090,124)
Warrants exercised during the year	9 a	1,018,506	7,002,043	-	-	7,002,043
Stock based compensation	9 b	-	-	1,651,118	-	1,651,118
Net and comprehensive loss		-	-	-	(41,907,079)	(41,907,079)
Balance - December 31, 2019		**39,907,681**	**$ 194,859,415**	**$ 8,303,527**	**$ (214,844,773)**	**$ (11,681,831)**
Balance - December 31, 2019		39,907,681	$ 194,859,415	$ 8,303,527	$ (214,844,773)	$ (11,681,831)
Issued pursuant to agency agreement[1]	9 a	23,923,700	12,818,657	-	-	12,818,657
Share issue expense		-	(487,788)	-	-	(487,788)
Common stock equivalents converted	9 a	11,500,000	1,150	-	-	1,150
Warrants exercised during the year	9 a	7,853,462	8,627,619	-	-	8,627,619
Stock based compensation	9 b	-	-	1,097,358	-	1,097,358
Net and comprehensive loss		-	-	-	(24,184,657)	(24,184,657)
Balance - December 31, 2020		**83,184,843**	**$ 215,819,053**	**$ 9,400,885**	**$ (239,029,430)**	**$ (13,809,492)**

1. Includes net proceeds from the issuance of common share equivalents (see note 9 a)
See notes to the consolidated financial statements

TITAN MEDICAL INC.
Consolidated Statements of Cash Flows
For the Years Ended December 31, 2020 and 2019
(In U.S. Dollars)

	Note	December 31, 2020	December 31, 2019
Cash provided by (used in):			
Operating activities:			
Net and comprehensive loss		$ (24,184,657)	$ (41,907,079)
Items not involving cash:			
Amortization		236,842	32,555
Impairment of patent rights		45,981	-
Non-cash interest on lease		36,274	-
Stock based compensation		1,097,358	1,651,119
Warrant liability-fair value adjustment		27,855,678	(19,800,645)
Warrant liability-foreign exchange adjustment		95,631	17,687
Non-cash issue costs		764,132	744,501
Non-cash settlements	6, 9 a	(2,262,052)	-
Non-cash note payable expenses and accrued interest		385,496	-
Changes in non-cash working capital items:			
Amounts receivable, prepaid expenses and deposits		(544,429)	8,336,486
Accounts payable and accrued liabilities		(4,371,371)	4,965,008
Cash used in operating activities		(845,117)	(45,960,368)
Financing activities:			
Net proceeds from issuance of common shares and warrants[1]		24,688,851	35,766,754
Note payable		1,500,000	-
Repayment of lease liabilities		(90,053)	(5,100)
Cash provided by financing activities		26,098,798	35,761,654
Investing Activities:			
Purchase of property, plant and equipment		(280,410)	-
Cost of patents		(318,958)	(458,037)
Cash used in investing activities		(599,368)	(458,037)
Increase (decrease) in cash and cash equivalents		24,654,313	(10,656,751)
Cash and cash equivalents, beginning of the period		814,492	11,471,243
Cash and cash equivalents, end of the period		**$ 25,468,805**	**$ 814,492**
Cash and cash equivalents comprise:			
Cash		$ 1,302,037	$ 141,768
Cash equivalents		24,166,768	672,724
		$ 25,468,805	$ 814,492

1. Includes net proceeds from the issuance of common share equivalents - see note 9 a.
See notes to the consolidated financial statements

1. DESCRIPTION OF BUSINESS

Nature of Operations:

Titan Medical Inc.'s ("Titan" or the "Company") business is in the research and development stage and is focused on the continued design and development of robotic assisted surgical technologies for application in minimally invasive surgery including the development of the Enos™ robotic single-access surgical system (the "Enos system"). In the near term, the Company will continue efforts to complete product development and proceed to pre-clinical and confirmatory human studies and satisfaction of appropriate regulatory requirements. Upon receipt of regulatory approvals, the Company will transition from the research and development stage to the commercialization stage. The completion of the later stage will be subject to the Company receiving additional funding in the future.

The Company is incorporated in Ontario, Canada in accordance with the Business Corporations Act. The address of the Company's corporate office and its principal place of business is Toronto, Canada.

On May 29, 2020, the Company established a wholly owned subsidiary, Titan Medical USA Inc. ("Titan USA" or "Subsidiary"), a corporation that is duly organized and existing under the laws of Delaware.

Basis of Presentation:

(a) Statement of Compliance

These consolidated financial statements for the year ended December 31, 2020, and December 31, 2019, have been prepared in accordance with International Financial Reporting Standards and International Accounting Standards as issued by the International Accounting Standards Board ("IASB") and interpretations (collectively "IFRS").

The consolidated financial statements were authorized for issue by the Board of Directors on February 20, 2021.

(b) Basis of Measurement

These consolidated financial statements have been prepared on the historical cost basis except for the revaluation of the warrant liability, which is measured at fair value.

(c) Basis of Consolidation

These consolidated financial statements incorporate the financial statements of the Company and its wholly owned subsidiary. The accounts of the Subsidiary were prepared for the same reporting year as the Company, using consistent accounting policies. Intercompany transactions, balances and unrealized gains or losses on transactions have been eliminated.

(d) Functional and Presentation Currency

These consolidated financial statements are presented in United States dollars ("U.S."), which is the Company's functional and presentation currency.

1. DESCRIPTION OF BUSINESS (continued)

(e) Use of Estimates and Judgements

The preparation of the consolidated 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 consolidated financial statements and the reported amount of expenses during the year. Financial statement items subject to significant judgement include:

- incremental borrowing rate used to measure lease liabilities
- fair value estimate of the measurement of leases and warrant liabilities

assessment of the Company's ability to meet its obligations as they come due as described in Note 13, the company is subject to liquidity risk. The Company expects to be able to continue its operations for the foreseeable future.

While management believes that the estimates and assumptions are reasonable, actual results may differ.

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.

(f) COVID-19

Since December 31, 2019, the outbreak of a 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, along with the uncertainty around the disease itself, have caused material disruption to business globally resulting in an economic slowdown. Global equity markets have experienced significant volatility. 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. Due to the uncertainty caused by the COVID-19 outbreak, the Company is experiencing a longer recruitment cycle for recruiting technical personnel, and travel restrictions have slowed its ability to select and qualify suppliers for certain of its products. Furthermore, contractors and suppliers engaged by the Company may also be impacted by COVID-19 and there is a risk they could fail to meet their obligations to the Company. The effects of these impediments on the Company's ability to achieve its milestones, including the timeline for completion, is unknown at this time.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

(a) Cash and Cash Equivalents

Cash and cash equivalents include cash balances and amounts on deposit in interest saving accounts with interest rates of less than 1%.

(b) Property, plant, and equipment

Property, plant, and equipment is recorded at cost less accumulated depreciation and accumulated impairment losses, if any. The Company records depreciation using the straight-line method over the

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

estimated useful lives of the capital assets, as follows:

Computer equipment	3 years
Furniture and fixtures	3 years
Machinery	3 years
Leasehold improvements	Remaining term of the lease

(c) Leases

The Company assesses whether a contract is or contains a lease, at inception of a contract in accordance with IFRS 16 Leases. The Company recognizes a right-of-use asset and a corresponding lease liability with respect to all lease agreements in which it is the lessee, except for short-term leases (defined as leases with a lease term of 12 months or less) and leases of low value assets. The lease liability is initially measured at the present value of lease payments that are not paid at the commencement date, discounted by an incremental borrowing rate ("IBR"). The IBR is defined as the interest rate that the lessee would incur to borrow under a secured loan with terms similar to those of the lease. For the year ended December 31, 2020, the Company used an IBR of 6% (2019: 6%).

Lease payments included in the measurement of the lease liability comprise fixed lease payments less any lease incentives (e.g., free rent period). Non-lease components outlined in the lease are accounted as operating expenses in the period charged.

Right of use assets are initially measured at the amount of the lease liability, reduced for any lease incentives received.

Subsequent to initial measurement, lease liabilities increase as a result of interest charged at a constant rate on the balance outstanding and are reduced for lease payments made. Right-of-use assets are amortized on a straight-line basis over the remaining term of the lease.

For short-term leases (leases with a term of 12 months or less) and leases of low value assets (accounted for as personal computers and office furniture), the Company has opted to recognize a lease expense on a straight-line basis as permitted by IFRS 16. This expense, if any, is presented within general expenses in the consolidated statement of comprehensive net income and loss.

(d) Patent Rights

Patent rights are recorded at cost less accumulated amortization and accumulated impairment loss. Straight-line amortization is provided over the estimated useful lives of the patents, as prescribed by the granting body, which range up to twenty (20) years.

(e) Impairment of Long-Lived Assets

The Company reviews computer equipment, furniture and equipment, machinery, leasehold improvements, right-of-use assets, and patent rights for objective evidence of impairment whenever events or changes in circumstances indicate the carrying value may not be recoverable. Recoverability is measured by comparison of the asset's carrying amount to the asset's recoverable amount, which is the greater of fair value less cost to sell and value in use. Value in use is measured as the expected future discounted cash flows expected to be derived from the asset. If the carrying value exceeds the recoverable amount, the asset is written down to the recoverable amount.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

(f) Deferred Income Taxes

The Company uses the asset and liability method of accounting for income taxes. Under this method, deferred tax assets and liabilities are determined based on differences between the financial reporting and tax bases of assets and liabilities, unused tax losses and income tax reductions, and are measured using the substantively enacted tax rates and laws that will be in effect when the differences are expected to reverse. A deferred tax asset is recognized for unused tax losses, tax credits and deductible temporary differences, to the extent that it is probable that future taxable profits will be available against which they can be utilized. Deferred tax assets are reviewed at each reporting date and are reduced to the extent that it is no longer probable that the related tax benefit will be realized. The ultimate realization of deferred tax assets is dependent upon the generation of future taxable income during the periods in which those temporary differences become deductible. Management considers the scheduled reversal of deferred tax liabilities, projected future taxable income and tax planning strategies in making this assessment. Management has determined not to recognize its net deferred tax assets, as it is not considered probable that future tax benefits will be realized.

(g) Foreign Currency

Transactions in currencies other than U.S. dollars are translated at exchange rates in effect at the date of the transactions. Foreign exchange differences arising on settlement are recognized separately in net and comprehensive loss. Monetary year end balances are converted to U.S. dollars at the rate in effect at that time. Non-monetary items in a currency other than U.S. dollars that are measured in terms of historical cost are translated using the exchange rate at the date of transaction or date of adoption of U.S. functional currency, whichever is later. Foreign exchange gains and losses are included in net and comprehensive loss.

(h) Warrant Liability

Certain of the Company's warrants have exercise prices that are not fixed and as such in accordance with IAS 32, they must be recorded as a derivative financial liability. This applies both in the case where the Company's warrants are denominated in a currency (Canadian dollars) other than the Company's functional currency (U.S. dollars), and when a warrant is issued with a cashless exercise option or a ratchet down feature. In each case, these warrants are initially measured at fair value and subsequent changes in fair value are recorded through Net and Comprehensive Loss for the year. A proportional amount of costs associated with the issue of shares and warrants is allocated to the warrants and recorded through Net and Comprehensive Loss for the year. At each balance sheet date, the Company reviews the classification of each Warrant Liability to determine whether the appropriate classification remains with Liabilities or requires reclassification to Equity.

At each balance sheet date, the Warrant Liability of listed warrants is adjusted to fair value measured at the market price of the listed warrants and the Warrant Liability of unlisted warrants is adjusted to fair value using the Black-Scholes model. Prior to March 31, 2019, the Black-Sholes model for the unlisted warrants was determined using a comparable warrant quoted in an active market, adjusted for differences in the terms of the warrant. Since March 31, 2019, it was determined that the comparable warrant was no longer an effective benchmark and the Company began to use the market price and volatility of the Company's common shares listed on the Toronto Stock Exchange ("TSX") adjusted for differences in the terms of the warrant.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

(i) Fair Value Measurement

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 warrant liability relating to listed and unlisted warrants is initially based on Level 2 significant observable inputs and at subsequent dates is adjusted using Level 1 inputs for listed warrants and Level 2 inputs for unlisted warrants.

(j) Stock-Based Compensation

IFRS 2 requires options granted to employees and others providing similar services to be measured at the fair value of goods or services received unless that fair value cannot be estimated reliably. If the entity cannot estimate reliably the fair value of the goods or services received, the entity shall measure the value and the corresponding increase in equity, indirectly, by reference to the fair value of the equity instruments granted, which the Company does using the Black-Scholes option pricing model. The fair value of the options granted is determined as at the grant date.

Stock options granted to non-employees are valued at the fair value of the goods or service received, measured at the date on which the goods are received, or the services rendered. If the entity cannot estimate reliably the fair value of the goods or services received, the entity shall measure the value and the corresponding increase in equity, indirectly, by reference to the fair value of the equity instruments granted, which the Company does using the Black-Scholes option pricing model. The fair value of the options granted is determined as at the grant date.

Stock options are issued to vest immediately or when used as a long-term incentive, are commonly issued over a vesting period of up to seven years. The expense related to options with a vesting period are recorded over the vesting period in accordance with the terms of the options.

(k) Research and Development Costs

Research and development activities undertaken with the prospect of gaining new scientific or technical knowledge and understanding are expensed as incurred. The costs of developing new products are capitalized as deferred development costs if they meet the development capitalization criteria under IFRS. These criteria include the ability to measure development costs reliably, the product is technically, and commercially feasible, future economic benefits are probable, and the Company intends to and has sufficient resources to complete development and to use or sell the asset. To date, all the research and development costs have been expensed as the criteria for capitalization have not yet been met.

(l) Investment Tax Credits

As a result of incurring scientific research and development expenditures, management has estimated that there will be non-refundable federal and refundable and non-refundable provincial investment tax credits receivable following the completion of an audit process by tax authorities. Investment tax credits are recorded when received or when there is reasonable assurance that the credits will be realized. Upon recognition, amounts will be recorded as a reduction of research and development expenditures.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

(m) Financial Instruments

Financial assets include cash and cash equivalents and amounts receivable which are measured at amortized cost. Amounts receivable include HST recoverable and other receivables. Financial liabilities include accounts payable and accrued liabilities which are measured at amortized cost.

(n) 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 (the "License Agreement") with Medtronic, whereby the Company is providing exclusive access to certain IP rights relating to robotic assisted surgical technologies (see Note 7). 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. (see Note 14)

On June 3, 2020, the Company also entered into a development and license agreement with Medtronic (the "Development Agreement") that provides for the development of robotic assisted surgical technologies for use by both Titan and Medtronic in their respective businesses. The Company's entitlement to receive up to $31 million pursuant to the Development Agreement is conditional upon the completion of certain technology development milestones set forth in the Development Agreement. 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 (see Note 14). 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.

(o) Short-term Employee Benefits

Short-term employee benefit obligations including Company paid medical, dental and life insurance plans, are measured on an undiscounted basis and are expensed as the related service is provided.

(p) Provisions

A provision is recognized, if as a result of a past event, the Company has a present legal or constructive obligation that can be estimated reliably, and it is probable that an outflow of economic benefits will be required to settle the obligation.

(q) Earnings (Loss) per Share

Basic earnings (loss) per share are calculated using the weighted-average number of common shares outstanding during the year. Diluted earnings (loss) per share considers the dilutive impact of the exercise of outstanding stock options and warrants, as if the events had occurred at the beginning of the period or at a time of issuance, if later. Diluted loss per share has not been presented in the accompanying consolidated financial statements, as the effect would be anti-dilutive.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

(r) Adoption of New Accounting Standard

There were a number of amendments effective for annual reporting periods beginning on or after January 1, 2020 which were adopted during the year. None were deemed to have a material impact. The amendments were:

- IAS 1 *Presentation of Financial Statements* and IAS 8 *Accounting Policies, Changes in Accounting Estimates and Errors* (Amendment – Disclosure Initiative – Definition of Material;
- Revisions to the Conceptual Framework for Financing Reporting;
- Definition of a Business (Amendments to IFRS 3);
- Interest Rate Benchmark Reform – IBOR 'phase 2' (Amendments to IFRS 9 and IAS 39) and
- COVID-19 – Related Rent Concessions (Amendments to IFRS 16).

(s) Standards, Amendments, and Interpretations not yet Effective

IAS 16 "Property, Plant and Equipment" outlines the accounting treatment for most types of property, plant, and equipment. Property, plant, and equipment is initially measured at its cost, subsequently measured either using a cost or revaluation model, and depreciated so that its depreciable amount is allocated on a systematic basis over its useful life. In May 2020 the IASB issued Property, Plant and Equipment – Proceeds before Intended Use which made amendments to IAS 16. The amendments prohibit an entity from deducting from the cost of property, plant and equipment any proceeds from selling items produced while the entity is preparing the asset for its intended use. Instead, an entity shall recognize such sales proceeds and related cost in net income. This amendment is effective for the Company beginning January 1, 2022. The Company is assessing the impact of the amendment on its financial statements.

The Company does not expect any other standards issued by the IASB, but not yet effective, to have a material impact on the group.

(In U.S. Dollars)

3. PROPERTY, PLANT, AND EQUIPMENT

For the year ended December 31, 2020	Cost	Accumulated depreciation	Net Book Value
Computer equipment			
Balance at December 31, 2019	$ -	$ -	$ -
Additions	49,721	-	49,721
Depreciation in the year	-	(12,827)	(12,827)
Furniture and fixtures			
Balance at December 31, 2019	-	-	-
Additions	53,689	-	53,689
Depreciation in the year	-	(20,352)	(20,352)
Leasehold improvements			
Balance at December 31, 2019	-	-	-
Additions	23,619	-	23,619
Depreciation in the year	-	(1,858)	(1,858)
Machinery			
Balance at December 31, 2019	-	-	-
Additions	153,380	-	153,380
Depreciation in the year	-	-	-
Balance at December 31, 2020	**$ 280,409**	**$ (35,037)**	**$ 245,372**

For the year ended December 31, 2019	Cost	Accumulated depreciation	Net Book Value
Computer equipment			
Balance at December 31, 2018	$ -	$ -	$ -
Furniture and fixtures			
Balance at December 31, 2018	-	-	-
Leasehold improvements			
Depreciation in the year	-	-	-
Machinery			
Balance at December 31, 2019	-	-	-
Balance at December 31, 2019	**$ -**	**$ -**	**$ -**

(In U.S. Dollars)

4. LEASES

At inception of a lease, the Company recognizes a right-of-use asset and a lease liability in the statement of financial position, initially measured at the present value of future lease payments (net of non-lease general expenses which are expensed as incurred).

Toronto, Ontario Lease

The Company entered into an 18-month lease for its corporate head office in Toronto, Ontario on November 1, 2019. The monthly base rent is $2,806. The Company recognized a right-of-use asset offset by a prepayment and a lease liability of $34,172 relating to this lease.

For the year ended December 31, 2020, the Company recognized $22,670 of amortization and $12,743 in interest expense relating to this lease and repaid $33,666 of the lease liability. The lease liability at December 31, 2020, was $8,145.

Chapel Hill, North Carolina Lease

The Company entered into a 62-month lease for its R&D office in Chapel Hill, North Carolina on April 1, 2020. The monthly base rent is $8,320. The Company recognized a right-of-use asset and a lease liability of $442,684 relating to this lease.

Titan USA entered into a lease amending agreement to lease additional office space in Chapel Hill, North Carolina on November 1, 2020. The term of the lease amendment is 55 months, and the base monthly rent is $10,628. The Company recognized a right of use asset and a lease liability of $498,584 relating to this lease.

For the year ended December 31, 2020, the Company recognized $82,391 of amortization and $23,531 in interest expense relating to the leases at Chapel Hill, repaid $56,387 of the lease liability. The lease liability at December 31, 2020, was $908,414.

Right of use assets **For the year ended December 31, 2020**		**Cost**		**Accumulated amortization**		**Net Book Value**
Head Office						
Balance at December 31, 2019	$	34,172	$	(3,778)	$	30,394
Amortization in the year		-		(22,670)		(22,670)
Chapel Hill						
Balance at December 31, 2019	$	-	$	-	$	-
Additions		941,268		-		941,268
Amortization in the year		-		(82,391)		(82,391)
Balance at December 31, 2020	**$**	**975,440**	**$**	**(108,839)**	**$**	**866,601**

For the year ended December 31, 2019		**Cost**		**Accumulated amortization**		**Net Book Value**
Head Office						
Balance at December 31, 2018	$	-	$	-	$	-
Additions		34,172		-		34,172
Amortization in the year		-		(3,778)		(3,778)
		-				
Balance at December 31, 2019	**$**	**34,172**	**$**	**(3,778)**	**$**	**30,394**

(In U.S. Dollars)

4. LEASES (continued)

Lease liabilities – maturity analysis	2020	2019
Less than one year	$ 165,768	$ 21,071
One to three years	646,481	8,001
Four to five years	104,310	-
Total lease liabilities at December 31, 2020	**$ 916,559**	**$ 29,072**

5. PATENT RIGHTS

For the year ended December 31, 2020	Cost	Accumulated Amortization	Net Book Value
Balance at December 31, 2019	$ 1,856,750	$ (255,005)	$ 1,601,745
Impairment losses	(45,981)	-	(45,981)
Additions during the year	318,958	-	318,958
Amortization in the year	-	(96,744)	(96,744)
Balance at December 31, 2020	**$ 2,129,727**	**$ (351,749)**	**$ 1,777,978**

For the year ended December 31, 2019	Cost	Accumulated Amortization	Net Book Value
Balance at December 31, 2018	$ 1,398,713	$ (226,228)	$ 1,172,485
Impairment losses	-	-	-
Additions during the year	458,037	-	458,037
Amortization in the year	-	(28,777)	(28,777)
Balance at December 31, 2019	**$ 1,856,750**	**$ (255,005)**	**$ 1,601,745**

For the year ended December 31, 2020, the Company recorded impairment charges of $45,981 on certain older patent applications which have been abandoned.

6. ACCOUNTS PAYABLE AND ACCRUED LIABILITIES

The balance of accounts payable and accrued liabilities at December 31, 2020, is $4,528,890 (December 31, 2019 – $11,412,896). The majority of the payables and accrued liabilities of $3,732,616 relate to amounts owed to the Company's product development suppliers, an amount of $445,815 relates to legal and audit and the balance relates to regular business operations (December 31, 2019 - $10,049,622, $560,904 respectively).

Product Development Supplier Agreement

On April 30, 2020, the Company reached an agreement with a 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. Pursuant to the second agreement, the Company paid a monthly amount of $250,000 from October through December 2020, a lump sum payment of $2,299,682 in December 2020, $750,000 in January 2021 and will pay a monthly amount of $750,000 in each of February and March 2021. These payments will be applied toward settling the outstanding amounts owed. Assuming successful completion of conditions under the second agreement, the Company is not expected to incur interest on the outstanding amounts after December 2020, and $673,000 of accrued interest is to be forgiven. A gain on settlement related to the accrued interest has been recognized in the quarter ended December 31, 2020.

(In U.S. Dollars)

6. ACCOUNTS PAYABLE AND ACCRUED LIABILITIES (continued)

Naglreiter Consulting Litigation

In late 2019, the Company became involved in litigation with Naglreiter Consulting, LLC. On June 8, 2020, the Company entered into a settlement agreement pursuant to which (i) a sum of $1,050,000 was paid to Naglreiter, (ii) Naglreiter returned certain personal property and related electronic data in its possession, (iii) and the pending litigation was dismissed. The Company recognized a gain on settlement of $1,839,626 in the year.

7. NOTE PAYABLE

During the year, the Company entered into an agreement with Medtronic for a note payable (the "Note"). In connection with the Note,the Company executed and delivered a security agreement in favour of Medtronic (the "Security Agreement"). Under the Note agreement, the Company received $1.5 million in cash and owes an additional $296,046 related 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 (see Note 2). For the year ended December 31, 2020, the Note has accrued interest of $89,451.

The Security Agreement grants a security interest in all of the Company's present and future property including all personal property, inventory, equipment, and intellectual property to the Corporate 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 judgement 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.

8. WARRANT LIABILITY

For the year ended December 31, 2020	Number of Warrants		Amount
Opening Balance	21,203,411	$	3,621,444
Issue of warrants expiring, March 27, 2025	3,500,000		475,300
Issue of warrants expiring, November 6, 2025	2,757,252		508,200
Issue of warrants expiring, June 10, 2024	9,000,000		9,709,200
Warrants exercised during the year	(7,257,252)		(5,948,771)
Warrants expired during the year	(233,740)		(26,198)
Foreign exchange adjustment during the year	-		95,631
Fair value adjustment during the year	-		27,881,875
Balance at December 31, 2020	**28,969,671**	**$**	**36,316,681**

(In U.S. Dollars)

8. WARRANT LIABILITY (continued)

For the year ended December 31, 2019	Number of Warrants		Amount
Opening Balance	13,901,859	$	11,250,167
Issue of warrants expiring, March 21, 2024	8,455,882		15,897,059
Warrants exercised during the year	(1,018,506)		(3,742,824)
Warrants expired during the year	(135,824)		-
Foreign exchange adjustment during the year	-		17,687
Fair value adjustment during the year	-		(19,800,645)
Balance at December 31, 2019	**21,203,411**	**$**	**3,621,444**

For the year ended December 31, 2020, the warrants outstanding by series are:

Listed Warrants	Expiry date		Exercise Price CDN$	Number issued	Number outstanding
TMD.W.T.G	12-Feb-21	$	30.00	447,253	444,920
TMD.W.T.H	31-Mar-21	$	36.00	577,106	577,106
TMD.W.T.I	20-Sep-21	$	22.50	637,111	637,111
Balance at December 31, 2020				**1,661,470**	**1,659,137**

Unlisted Warrants (in CDN$)	Expiry date		Exercise Price CDN$	Number issued	Number outstanding
March 2017	16-Mar-21	$	15.00	357,787	355,253
June 2017	29-Jun-22	$	6.00	1,983,522	446,377
August 2017	24-Aug-22	$	6.00	563,067	563,067
December 2017	5-Dec-22	$	18.00	1,533,333	1,533,333
April 2018	10-Apr-18	$	10.50	1,295,554	1,295,554
Balance at December 31, 2020				**5,733,263**	**4,193,584**

Unlisted Warrants (in USD$)	Expiry date		Exercise Price USD$	Number issued	Number outstanding
August 2018[1]	10-Aug-23	$	2.9200	7,679,574	6,661,068
March 2019[2]	21-Mar-24	$	3.9500	8,455,882	8,455,882
March 2020	27-Mar-25	$	0.1900	3,500,000	-
May 2020	6-Nov-25	$	0.3002	2,757,252	-
June 2020	10-Jun-24	$	1.0000	9,000,000	8,000,000
Balance at December 31, 2020				**31,392,708**	**23,116,950**

Total Warrants Outstanding	**38,787,441**	**28,969,671**

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.

9. SHARE CAPITAL

(a) **Authorized:** unlimited number of common shares, no par value
Issued: 83,184,843 (December 31, 2019: 39,907,681)

Exercise prices of units, certain warrants and options are presented in U.S. currency when they are exercisable in U.S. dollars unless otherwise noted.

June 2020 Offering

On June 10, 2020, the Company completed an offering of securities made pursuant to an agency agreement dated March 17, 2020 between the Company and H.C. Wainwright & Co., LLC ("Wainwright") for the purchase and sale 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 convertible into one Common Share at a conversion 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 into one Common Share at a conversion price of $0.0001 and will expire when converted in full.

Pursuant to the placement agent agreement, in addition to the cash commission paid to Wainwright of $1,260,000, broker warrants were issued to Wainwright which entitle the holder to purchase 1,260,000 Common Shares at an exercise price of U.S. $1.25 per share prior to expiry on June 10, 2024.

The 11,500,000 June 2020 Common Stock Equivalents were converted during the year for total proceeds of $1,150.

May 2020 Financing

On May 6, 2020, the Company completed a registered direct offering of securities made pursuant to an agency agreement dated March 17, 2020 between the Company and Wainwright that provide for the purchase and sale of 5,514,504 Common Shares of the Company at a per share purchase price of U.S. $0.36268 per Common Share and 2,757,252 unregistered Common Share purchase warrants (each, a "May 2020 Warrant"), resulting in total gross proceeds of $2,000,000 ($1,575,000 net of estimated closing cash costs including cash commission described below). Each May 2020 Warrant is exercisable to purchase one Common Share at an exercise price of U.S. $0.3002 per Common Share for a period of five and one-half (5.5) years following the date of closing of the offering. All of the May 2020 Warrants were exercised during the year.

Pursuant to the placement agency agreement, in addition to the cash commission paid to Wainwright of $140,000, broker warrants were issued to Wainwright which entitle the holder to purchase 386,015 Common Shares at a price of U.S. $0.45335 per share prior to expiry on November 6, 2025. During the year, 260,560 broker warrants were exercised.

(In U.S. Dollars)

9. SHARE CAPITAL (continued)

March 2020 Offering

On March 27, 2020, the Company completed an offering of securities made pursuant to an agency agreement dated March 17, 2020, between the Company and Wainwright for the purchase and sale of 7,000,000 Common Shares at a per share purchase price of U.S. $0.17 per Common Share and 3,500,000 common share purchase warrants (each, a "March 2020 Warrant"), resulting in total gross proceeds of $1,190,000 ($862,294 net of closing cash costs including cash commission described below). Each March 2020 Warrant is exercisable to purchase one Common Share at an exercise price of U.S. $0.19 per Common Share prior to expiry on March 27, 2025. The March 2020 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, 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 U.S. $0.2125 per share prior to expiry on March 27, 2025. During the year, 335,650 broker warrants were exercised.

Second Aspire Agreement

On December 23, 2019, the Company entered into a common share purchase agreement (the "Second Aspire Agreement") with Aspire Capital Fund, LLC ("Aspire") whereby Aspire committed to purchase up to $35 million of Common Shares, to a maximum of 9,729,777 Common Shares, at Titan's request from time to time, until June 23, 2022. On commencement of the Second Aspire Agreement, Titan issued to Aspire 973,000 Common Shares as consideration for entering into the Second Aspire Agreement. The value of the Common Shares issued of $423,440 was included in capital and offset by a fee of the same amount plus $35,122 for additional costs incurred.

Between January 3, 2020, and February 13, 2020, the Company issued 4,408,048 Common Shares pursuant to the Second Aspire Agreement as outlined in the following table:

Grant Date	Common shares issued		Value
January 3, 2020	500,000	$	219,600
January 6, 2020	500,000		229,300
January 8, 2020	400,000		195,160
January 10, 2020	500,000		247,550
January 17, 2020	600,000		303,000
January 23, 2020	600,000		295,320
February 6, 2020	600,000		282,000
February 13, 2020	708,048		300,000
	4,408,048	**$**	**2,071,930**

Under the Second Aspire Agreement, the balance remaining on Aspire's commitment is 4,348,729 Common Shares (with maximum value of $32.9 million), at Titan's request from time to time, until June 23, 2022.

(In U.S. Dollars)

9. SHARE CAPITAL (continued)

January 2020 Equity Transaction

On January 3, 2020, the Company announced that Cambridge Design Partnership Ltd. ("Cambridge") had subscribed for Common Shares. The Company issued 501,148 Common Shares at a unit price of $0.50 for satisfaction of the trade payable with Cambridge of $250,574.

First Aspire Agreement

On August 29, 2019, the Company entered into a common share purchase agreement (the "First Aspire Agreement") with Aspire whereby Aspire committed to purchase up to $35 million of Common Shares at Titan's request from time to time, until February 28, 2022. On commencement of the First Aspire Agreement, Titan immediately sold to Aspire 1,777,325 Common Shares, representing 5.3% of the Common Shares then issued and outstanding, at a price of U.S. $1.6879 per Common Share for gross proceeds of $3.0 million and issued to Aspire 639,837 Common Shares, representing 1.9% of the Common Shares then issued and outstanding, as consideration for entering into the First Aspire Agreement. Northland Securities, Inc. acted as the Company's agent and financial advisor in connection with the offering and pursuant to an agency agreement, was paid a cash fee of $160,000. Gross proceeds of $3.0 million, net of costs and fees of $417,113, was included in capital.

Subsequent to August 29, 2019 and subject to the First Aspire Agreement, the Company issued Common Shares to Aspire as outlined in the following table:

Grant Date	Common shares issued		Value
August 30, 2019	2,417,162	$	3,000,000
November 8, 2019	100,000		42,560
November 8, 2019	100,000		42,560
November 12, 2019	100,000		42,970
November 12, 2019	100,000		42,000
November 13, 2019	100,000		42,970
November 14, 2019	300,000		128,910
November 15, 2019	2,500,000		1,074,250
November 19, 2019	2,067,282		888,311
	7,784,444	**$**	**5,304,531**

March 2019 Equity Offering

On March 21, 2019, Titan completed an offering of securities made pursuant to an agency agreement dated March 18, 2019 between the Company and Bloom Burton Securities Inc. ("Bloom Burton"). The Company sold 8,455,882 units under the offering at a price of U.S. $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 Common Share purchase warrant, each warrant entitles the holder thereof to acquire one Common Share of the Company at an exercise price of U.S. $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 common shares.

(In U.S. Dollars)

9. SHARE CAPITAL (continued)

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 U.S. $3.40 per share prior to expiry on March 21, 2021. The broker warrants were valued using the Black-Scholes 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.

(b) Stock Options and Compensation Options

Titan has reserved and set aside up to 15% of the issued and outstanding Common Shares for granting of options to employees, officers, consultants, and advisors. At December 31, 2020, 9,553,956 Common Shares (December 31, 2019: 5,986,152) were available for issue in accordance with the Company's stock option plan. The terms of these options are determined by the Board of Directors.

For the year ended December 31, 2020, $1,097,358 of stock-compensation expense was recorded (December 31, 2019 – $1,651,119).

Options are granted to directors, officers, employees, and consultants at various times. Options are to be settled by physical delivery of shares. Options and the terms of each issue over the year ended December 31, 2020, are outlined below:

Grant date / recipient	Number of options	Exercise price	Vesting conditions	Contractual life of options
January 28, 2020, options granted to a director	25,765	CDN $0.657	Options vest immediately	7 years
July 30, 2020, options granted to a director	22,425	CDN $1.266	Options vest immediately	7 years
July 30, 2020, options granted to employees	1,350,000	USD $0.962	Options vest as to ¼ of the total number of options granted, every year from grant date	7 years
September 29, 2020, options granted to board members	27,304 19,568	CDN $0.960 USD $0.730	Options vest immediately	7 years
September 30, 2020, options granted to a consultant	4,723	USD $0.745	Options vest immediately	3 years
December 10, 2020, options granted to employees	4,000 623,000	CDN $1.700 USD $1.310	Options vest as to ¼ of the total number of options granted, every year from grant date	7 years

(In U.S. Dollars)

9. SHARE CAPITAL (continued)

A summary of the status of the Company's outstanding stock options as of December 31, 2020 and December 31, 2019 and changes during the years ended on those dates is presented in the following table:

STOCK OPTIONS OUTSTANDING

	CANADIAN DOLLAR		UNITED STATES DOLLAR	
	Number stock options	Weighted Average Exercise Price	Number of stock options	Weighted Average Exercise Price
Balance at December 31, 2019	860,379	$ 5.89	854,042	$ 2.65
Granted	79,494	0.99	1,997,291	0.96
Expired / forfeited	(105,908)	8.39	(761,528)	2.66
Balance at December 31, 2020	**833,965**	**$ 5.10**	**2,089,805**	**$ 1.13**

	CANADIAN DOLLAR		UNITED STATES DOLLAR	
	Number stock options	Weighted Average Exercise Price	Number of stock options	Weighted Average Exercise Price
Balance at December 31, 2018	875,433	$ 18.20	50,349	$ 1.55
Granted	35,719	4.54	843,693	2.72
Expired / forfeited	(50,773)	31.79	(40,000)	3.72
Balance at December 31, 2019	**860,379**	**$ 5.89**	**854,042**	**$ 2.65**

(In U.S. Dollars)

9. SHARE CAPITAL (continued)

The weighted-average remaining contractual life and weighted-average exercise price of options outstanding and of options exercisable as at December 31, 2020, are as follows:

Canadian Dollar Denominated Options

Exercise Price (CDN)	Number Outstanding	Weighted-average remaining contractual life (years)	Options Exercisable
$0.66	25,765	6.08	25,765
$0.96	27,304	6.75	27,304
$1.27	22,425	6.58	22,425
$1.70	4,000	6.95	-
$3.28	31,498	4.66	31,498
$4.54	682,422	3.09	360,237
$9.00	11,481	4.52	11,481
$30.00	28,260	0.65	28,260
$32.40	810	0.07	810
	833,965	**3.61**	**507,780**

United States Dollar Denominated Options

Exercise Price (USD)	Number Outstanding	Weighted-average remaining contractual life (years)	Options Exercisable
$0.73	19,568	6.75	19,568
$0.75	4,723	2.75	4,723
$0.96	1,350,000	6.58	-
$1.31	623,000	6.95	-
$1.55	50,349	0.96	50,349
$2.20	2,165	5.55	2,165
$3.72	40,000	1.69	-
	2,089,805	**6.45**	**76,805**
Total	**2,923,770**	**5.64**	**584,585**

The weighted average exercise price of Canadian dollar denominated options outstanding is CDN $5.10 and CDN $4.86 for options that are exercisable. The weighted average exercise price of U.S. dollar denominated options outstanding is U.S. $1.13 and U.S. $1.31 for options that are exercisable.

9. SHARE CAPITAL (continued)

Inputs for Measurement of Grant Date Fair Values

The grant date fair value of all share-based payment plans was measured based on the Black-Scholes option pricing model. Expected volatility was estimated by considering historic average share price volatility. The weighted average inputs in the original currency of the grants (CDN$ or U.S.$) used in the measurement of fair values at grant date of the share-based option grants for the year end December 31, 2020 and 2019 are as follows:

	CANADIAN DOLLARS		UNITED STATES DOLLARS	
	2020	**2019**	**2020**	**2019**
Fair value at grant	$ 0.82	1.61	0.89	1.48
Share price at grant	1.01	2.90	1.04	2.36
Exercise price	1.04	4.54	1.07	2.72
Expected option life	4 years	3.4 years	4.0 years	3.5 years
Risk free interest rate	0.67%	1.43%	0.29%	1.50%
Expected volatility	145.61%	98.10%	149.77	97.90%
Expected dividends	Nil	Nil	Nil	Nil

(c) Warrants

In addition to the warrants accounted for as a liability at December 31, 2020 (see Note 8), the Company has 2,131,716 broker warrants that are issued, outstanding and exercisable in U.S. dollars (December 31, 2019: 1,219,276). These broker warrants expire between March 21, 2021 and November 6, 2025 (December 31, 2019: broker warrants had expiry dates between April 10, 2020 and March 21,2021).

Expiry date		**Exercise Price**	**Outstanding at December 31, 2019[1]**	**Issued**	**Exercised**	**Expired**	**Outstanding at December 31, 2020[1]**
April 12, 2020	$	9.00000	89,795	-	-	(89,795)	-
August 10, 2020	$	2.50000	537,570	-	-	(537,570)	-
March 21, 2021	$	3.40000	591,911	-	-	-	591,911
June 10, 2024	$	1.25000	-	1,260,000	-	-	1,260,000
March 27, 2025	$	0.21250	-	490,000	(335,650)	-	154,350
November 6, 2025	$	0.45335	-	386,015	(260,560)	-	125,455
Ending balance			**1,219,276**	**2,136,015**	**(596,210)**	**(627,365)**	**2,131,716**

Note 1 All broker warrants issued and outstanding are fully exercisable. All broker warrants issued, outstanding and exercisable are in U.S. dollars.

(In U.S. Dollars)

10. INCOME TAXES

(a) Current income taxes

Below is a reconciliation of combined federal and provincial corporate income taxes at the company's effective rate of 26.5% (2019: 26.5%).

	December 31, 2020	December 31, 2019
Net loss before income taxes	$ (24,184,657)	$ (41,907,079)
Income taxes at statutory rates	(6,408,934)	(11,105,376)
Tax effect of expenses not deductible for income tax purposes:		
Permanent differences	7,648,554	(4,800,780)
Unrecognized share issue costs	(129,264)	(625,220)
Tax / foreign rate changes and other adjustments	(49,409)	93,724
Total tax recovery	1,060,947	(16,437,652)
Tax recovery not recognized	(1,060,947)	16,437,652
	$ -	$ -

(b) Deferred income taxes

Deferred income tax assets and liabilities result primarily from differences in recognition of certain timing differences that give rise to the Company's future tax assets (liabilities) and are as follows:

	December 31, 2020	December 31, 2019
Non-capital losses	$ 62,773,915	$ 63,740,497
Qualifying research and development expenditure	1,493,309	1,493,309
Share issue costs and other	1,868,633	1,999,584
Total tax assets	66,135,857	67,233,390
Tax assets not recognized	(66,135,857)	(67,233,390)
Net deferred tax assets	$ -	$ -

In assessing the realizability of deferred tax assets, management considers whether it is probable that some or all the deferred tax assets will not be realized. The ultimate realization of deferred tax assets is dependent upon the generation of future taxable income during the periods in which those temporary differences become deductible. Management considers the scheduled reversal of deferred tax liabilities, projected future taxable income and tax planning strategies in making this assessment. Management, based on IFRS criteria, has determined, at this time, not to recognize its deferred tax assets.

(In U.S. Dollars)

10. INCOME TAXES (continued)

(c) Losses carried forward

The Company has non-capital losses of approximately $236,882,697 available to reduce future income taxes. The non-capital losses expire approximately as follows:

Expiry year	Non-capital losses
2031	$ 9,674,326
2032	10,454,774
2033	10,210,370
2034	13,784,437
2035	43,934,918
2036	28,260,911
2037	19,604,159
2038	40,239,997
2039	60,718,805
	$ 236,882,697

The Company has accumulated Qualifying Research and Development expenses of $5,635,128 from prior years research and development. These expenditures may be carried forward indefinitely and used to reduce taxable income in future years.

As a result of a Canada Revenue Agency (CRA) audit completed in 2017 and 2016, regarding Titan's 2012 and 2011 SR&ED claim, the 2012 loss of $6,517,436 has been adjusted to $7,260,729 and the 2011 loss of $9,423,694 has been adjusted to $12,735,836. The qualifying SR&ED expenditures has also been adjusted from $9,439,430 to $5,635,128. CRA concluded that the claimed work did not satisfy the SR&ED criteria. Titan is appealing this decision by CRA.

(d) Investment tax credits

At December 31, 2020, the Company has $1,167,560 (2019 - $1,167,560) of unclaimed investment tax credits available to reduce federal income taxes payable in future years. If not utilized, these investment tax credits will start expiring in 2028. The amounts have been adjusted to reflect changes due to the CRA audit.

At December 31, 2020, the Company has $237,997 (2019 - $237,997) of unclaimed Ontario Research and Development Tax Credit available to reduce Ontario income taxes payable in future years. If not utilized, this credit will start expiring in 2029. The amounts have been adjusted to reflect changes due to the CRA audit.

11. COMMITMENTS

As part of its program of research and development of the Enos system, the Company has outsourced certain aspects of the design and development to third party technology and development companies. At December 31, 2020, $10,693,752 in purchase orders remain outstanding (December 31, 2019 - $1,327,294).

(In U.S. Dollars)

12. RELATED PARTY TRANSACTIONS

During the year ended December 31, 2020, transactions between the Company's directors, officers and other related parties were related to compensation matters in the normal course of operations and are measured at fair value, which is the amount of consideration established and agreed to by the related parties. Compensation paid to executive officers for the year ended December 31, 2020 amounted to $1,124,976 compared to $1,495,611 for the year ended December 31, 2019.

Common Shares Held by Directors and Officers	December 31, 2020		December 31, 2019	
	Number of shares	%	Number of shares	%
David McNally	4,167	0.01	4,167	0.01
Monique Delorme[1]	32,333	0.04	-	-
Perry Genova	514	0.00	-	-
Stephen Randall[2]	22,993	0.03	22,993	0.06
John Barker[3]	NA	NA	32,714	0.08
John Schellhorn[4]	NA	NA	294	-
Total	60,007	0.08	60,168	0.15
Common Shares Outstanding	**83,184,843**	**100.00**	**39,907,681**	**100.00**

1. Monique Delorme was appointed Chief Financial Officer on October 1, 2020.
2. Stephen Randall retired as Chief Financial Officer on September 30, 2020. He remains on the board of directors.
3. John Barker retired as directors effective September 30, 2020.
4. John Schellhorn retired as a director effective June 4, 2020.

13. FINANCIAL INSTRUMENTS

The Company's financial instruments consist of cash and cash equivalents, amounts receivable and accounts payable and accrued liabilities. The fair value of these financial instruments approximates their carrying values, unless otherwise noted, due to the short maturities of these instruments or the discount rate applied. Warrant liabilities are valued at fair value as described in note 2(h).

The Company's risk exposures and their impact on the Company's financial instruments are summarized below:

(a) Credit risk

The Company's credit risk is primarily attributable to cash and cash equivalents and amounts receivable. The Company has no significant concentration of credit risk arising from operations. Cash and cash equivalents are held with reputable financial institutions, from which management believes the risk of loss to be remote. Financial instruments included in amounts receivable consists of HST tax due from the Federal Government of Canada and interest receivable from interest saving account and short-term promissory notes. Management believes that the credit risk concentration with respect to financial instruments included in amounts receivable is remote.

(b) Liquidity risk

The Company's approach to managing liquidity risk is to ensure that it will have sufficient liquidity to meet liabilities when due and when appropriate will scale back its operations. As at December 31, 2020, the Company had cash and cash equivalents of $25,468,805 (December 31, 2019: $814,492) to settle liabilities of $7,330,946 (December 31, 2019: $11,441,968) excluding warrant liabilities of $36,316,681 (December 31, 2019: $3,621,444).

13. FINANCIAL INSTRUMENTS (continued)

The Company currently does not generate any sales revenue. It generates interest income on its cash balances and revenue from its license and development agreements as described in note 2(n). The Company believes that with its current financial resources and expected revenues from license and development agreements, the Company expects to be able to continue operations for the foreseeable future. As at December 31, 2020, the Company is primarily dependent upon financing to fund its research and design relating to its Enos system and operating expenses.

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. If additional financing is raised by the issuance of shares or convertible securities from treasury, control of the Company may change, and shareholders may suffer additional dilution. If adequate funds are not available, or are not available on acceptable terms, the Company may not be able to take advantage of opportunities, or otherwise continue its technology development program and may be required to operate under a reduced development program.

(c) Market risk

Market risk is the risk of loss that may arise from changes in market factors such as interest rates and foreign exchange rates.

i. Interest rate risk

The Company has cash balances and no interest-bearing debt. The Company's current policy is to invest excess cash in interest savings accounts and short-term promissory notes. The Company periodically monitors the investments it makes and is satisfied with the credit risk of its bank.

ii. Foreign currency risk

The Company's functional currency is the U.S. dollar. Expenditures transacted in foreign currency are converted to U.S. dollars at the rate in effect when the transaction is initially booked. The gain or loss on exchange, when the transaction is settled, is booked to the Statement of Net and Comprehensive Loss. Management acknowledges that there is a foreign exchange risk derived from currency conversion and believes this risk to be low as the Company now maintains a minimum balance of Canadian dollars.

(d) Sensitivity analysis

Cash equivalents include cash balances and amounts on deposit in interest savings account and short-term promissory notes. Sensitivity to a plus or minus 1% change in interest rates could affect annual net loss by $161,549 (December 31,2019: $62,071) based on the current level of cash invested in cash equivalents.

A strengthening of the U.S. dollar at December 31, 2020, as indicated below, against current assets and accounts payable and accrued liabilities denominated in Canadian currency of CDN $366,767 (December 31, 2019: $556,276) and warrant liability of CDN $5,497,342 (December 31, 2019: $868,855) would result in increased equity and an increased profit for the year of $219,010 (December 31, 2019: $32,541) as shown on the chart below. This analysis is based on foreign currency exchange rate variances that the Company considers to be reasonably possible at the end of the reporting period. The analysis assumes that all other variables, in particular, interest rates, remain constant. The sensitivity analysis is performed on the same basis for December 31, 2019.

(In U.S. Dollars)

13. FINANCIAL INSTRUMENTS (continued)

5% strengthening	December 31, 2020	December 31, 2019
Canadian dollar current assets	$ (7,659)	$ (19, 687)
Canadian dollar accounts payable and accrued liabilities	226,669	52,228
Change in profit (loss)	$ 219,010	$ 32,541

A weakening of the U.S. dollar against the Canadian dollar at December 31, 2020, and December 31, 2019, would have had the equal but opposite effect on the above currencies to the amount shown above, on the basis that all other variables remain constant.

14. REVENUES

On June 3, 2020, the Company entered into a License Agreement with Medtronic, whereby the Company is providing exclusive access to certain IP 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. The Company recognized revenue of $10 million under this agreement.

Technical Milestone under Medtronic Development and License Agreement

In 2020, the Company completed the first and second technical milestones under the Development Agreement with Medtronic (see note 7) and on October 28, 2020, received payment of $10 million. 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. The Company is entitled to receive up to an additional $21 million under the Development Agreement with completion of milestones 3 and 4 in May and September 2020, respectively.

15. SEGMENTED REPORTING

The Company operates in a single reportable operating segment – the research and development of the Company's single access robotic surgical system, the next generation of surgical robotic platform. The Company's long-term assets are domiciled in Toronto, Canada.

16. CAPITAL MANAGEMENT

The Company's capital is composed of shareholders' equity. The Company manages its capital structure and adjusts it, based on the funds available to the Company, to support the development of its single access robotic surgical system. The Board of Directors does not establish quantitative return on capital criteria for management, but rather relies on the expertise of the Company's management to sustain future development of its single access robotic surgical system. The Company has further progress to make in the development of the single access robotic surgical system and anticipates that the cost of completion will exceed its current resources. Accordingly, the Company will be dependent on external financing to fund its future activities. To carry out the completion of the single access robotic surgical system and pay for administrative costs, the Company will continue to raise additional amounts as needed. Management reviews its capital management approach on an ongoing basis and believes that this approach, given the relative size of the Company, is reasonable. There were no changes in the Company's approach to capital management during the year ended December 31, 2020.

17. SUBSEQUENT EVENTS

(a) Warrants exercised

Subsequent to December 31, 2020, and as of February 20, 2021, 8,583,250 Common Shares were issued upon the exercise of warrants for gross proceeds of $9,166,500, and 732,375 Common Shares were issued upon the exercise of broker warrants for gross proceeds of $812,057. No material transactions relating to the exercise of warrants have occurred from the date of February 20, 2021, to the date of filing these consolidated financial statements.

(b) Options exercised

Subsequent to December 31, 2020, and as of February 20, 2021, 19,568 Common Shares were issued upon the exercise of options for gross proceeds of $14,285.

(c) Equity offerings

January 2021 Equity Offering

On January 26, 2021, the Company closed an offering of 6,451,613 units of the Company ("January 2021 Units") sold on a "bought deal" basis, at price of U.S. $1.55 per January 2021 Unit for aggregate gross proceeds of U.S. $10,000,000. ("January 2021 Offering"). The underwriter also exercised its over-allotment option for an additional 967,741 January 2021 Units and additional gross proceeds of U.S. $1,500,000. Each January 2021 Unit consists of one common share in the capital of the Company (each a "Common Share" and one half (1/2) of one Common Share purchase warrant (each whole warrant, a "January 2021 Warrant"). Each January 2021 Warrant is exercisable to acquire one Common Share at an exercise price of U.S. $2.00 per share until January 26, 2026. Pursuant to the underwriting agreement, the underwriter will receive: (i) a cash fee equal to 7% of the gross proceeds of the offering, (including January 2021 Units sold pursuant to the exercise of the overallotment option), each entitling the holder to acquire one Common Share at U.S. $1.9375 for a period of 24 months after the closing date.

The net proceeds from the January 2021 Offering will be used to fund the development of the Company's robotic surgical technologies and for general working capital.

An aggregate of 39,500 January 2021 Units was purchased by directors, officers and employees of the Company and its subsidiary under the offering for gross proceeds of $61,225. Each insider subscription constitutes a "related party transaction" pursuant to *Multilateral Instrument 61-101 – Protection of Minority Security Holders in Special Transactions* "MI 61-101"). In completing the purchases of January 2021 Units by the Company's insiders, the Company will rely on the exemptions from the formal valuation and minority shareholder approval requirements of MI 61-101, as the aggregate value of the purchases of the units does not exceed 25% of the market capitalization of the Company.

17. SUBSEQUENT EVENTS (continued)

February 2021 Equity Offering

On February 3, 2021, the Company entered into an underwriting agreement ("February 2021 Underwriting Agreement") in respect of a "bought deal" offering of 8,335,000 units of the Company ("February 2021 Units") at price of U.S. $2.40 per February 2021 Unit (the "Offering Price") for aggregate gross proceeds of U.S. $20,004,000 ("February 2021 Offering"). Each February 2021 Unit consists of one common share in the capital of the Company (each a "Common Share") and one half (1/2) of one Common Share purchase warrant (each whole warrant, a "February 2021 Warrant"). Each February 2021 Warrant will be exercisable to acquire one Common Share at an exercise price of U.S. $3.00 per share for a period of 24 months after the closing date. Pursuant to the underwriting agreement, the underwriter will receive: (i) a cash fee equal to 7% of the gross proceeds of the offering, (including February 2021 Units sold pursuant to the exercise of the overallotment option), and (ii) a number of broker warrants equal to 7% of the total number of February 2021 Units sold in the offering (including units sold pursuant to the exercise of the over-allotment option), each entitling the holder to acquire one Common Share at U.S. $3.00 for a period of 24 months after the closing date. The Company has granted the underwriter an option, exercisable in whole or in part and from time to time at any time until 30 days after the closing of the offering, to purchase up to an additional number of units equal to 15% of the number of February 2021 Units sold pursuant to the offering at the February 2021 Offering Price. The Offering is expected to close on or about February 23, 2021.A condition of the February 2021 Underwriting Agreement restricts the Company from issuing, without prior agreement from the underwriter, any Common Shares, or any securities convertible into or exchangeable for or exercisable to acquire Common Shares for a period commencing on the date of the February 2021 Underwriting Agreement and ending ninety (90) days following the closing date, except under pre-existing rights or obligations. This would include restricting the issuance of shares under the Second Aspire Agreement (see note 9).

The net proceeds from the February 2021 Offering will be used to fund the development of the Company's robotic surgical technologies and for general working capital.

TITAN MEDICAL INC.

MANAGEMENT'S DISCUSSION AND ANALYSIS

FOR THE YEAR ENDED DECEMBER 31, 2020

(IN UNITED STATES DOLLARS)

This Management's Discussion and Analysis ("MD&A") is dated February 20, 2021.

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 audited financial statements for the Company's fiscal year ended December 31, 2020 (the "2020 Fiscal Year") (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.

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, and attract and retain qualified personnel;
- the adverse impact on the Company's contractors and suppliers' ability to meet their obligations to the Company as a result of COVID-19;
- The Company's business consists of the design and development of robotic-assisted surgical technologies for application in MIS and is presently focused on the development of the Enos™ robotic single access 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 Company's 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;
- the Company's post-training assessment will include validation of the effectiveness of those assessment tools;
- the Company's filing and prosecution of patents will 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 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 will likely proceed with a De Novo classification request for the Enos system, while continuing to evaluate its options for use of the 510(k) submission pathway;
- the Company's intention to continue with 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 beyond 2022, in a timely manner;
- the Company has sufficient cash on hand to satisfy expected costs associated with the deliverables under Medtronic Milestone 3 and 4, as well as to satisfy the repayment of the Note when it becomes due;
- the Company may require additional funding to complete its submission of its application to the FDA for marketing authorization of its Enos system;
- the fact that the Company cannot produce an accurate estimate of the future costs of the development milestones and regulatory phases beyond the year 2022;
- 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 Plan" and the footnotes thereunder;

- the indication of additional specific milestones as the development of the Enos system progresses;
- 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 receive a series of payments for Medtronic's license to robotic assisted surgical technologies;
- 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 will gradually transition to the new Enos system brand identity, including on its website and in presentations and other corporate material;
- 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;
- the Company's intentions to complete summative human factors studies and complete the design and development of the system and initiate clinical studies;
- the Company has sufficient capital on hand to complete Milestones 3 through 9 of the table noted under "Development Plan";
- the Company expects to be able to continue operations for 16 months and complete Milestones 3 through 14, with its current financial resources and the net proceeds from the February 2021 Offering;
- with the Company's current financial resources and the net proceeds from the February 2021 Offering, the Company expects to have the financial resources to be able to continue operations for 22 months and complete Milestones 3 through 16, if the Company achieves Medtronic Milestones 3 and 4 and receives the payments from Medtronic in respect of those milestones;
- the expected closing date of the the February 2021 Offering;
- the surgical indications for, and the benefits of, the Enos system;
- the Company's seeking of licensing opportunities to expand its intellectual property portfolio;
- 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 financing;
- 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 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; and
- 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.

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 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.

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.

Please also refer to the risk factors set forth in 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, the Company is 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 (as described below) 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 the Company does proceed with a De Novo classification submission, additional resources, costs and time may 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 additional costs and time that may be involved, including whether it will ultimately proceed with a De Novo classification submission.

Disclosure Controls and Procedures and Internal Control Over Financial Reporting

The Company identified material weaknesses in its internal controls over financial reporting ("ICFR") in the course of the preparation of its financial statements in respect of the fiscal year ended December 31, 2020 prior to the approval of the financial statements by the Company's audit committee and board or directors and prior to their filing or other public disclosure. If the Company fails to maintain effective ICFR, this may adversely affect the accuracy and reliability of its financial statements and it could impact its reputation, business and the price of the Company's common shares (the "Common Shares"), as well as lead to a loss of investor confidence.

The Company has concluded that, as of December 31, 2020, the Company's ICFR was not effective due to a material weakness. The Company experienced significant and rapid change during the 2020 fiscal year as a result of the establishment of a new research and development facility, the augmentation of its development team, new arrangements with external development firms and the transition arising from the retirement of the Company's former Chief Financial Officer and the appointment of its new Chief Financial Officer as well as changes in the Company's financial accounting and reporting personnel. The Company's continuous risk assessment process was not effective in responding to the rapid rate of change in personnel and new business developments and the Company did not have sufficient human resources available to adequately assess risk and reinforce or strengthen controls in the requisite timeframe. Prior to presentation of its financial statements for their approval by the Company's audit committee and board of directors, the Company determined that it would adjust its consolidated annual financial statements as at and for the year ended December 31, 2020 with respect to expense recognition to correct errors in the calculation of asset and liability balances and the appropriate IFRS application and disclosure required for an amendment of a contract with an external development firm.

There can be no assurance that the Company will be able to successfully remediate the identified material weaknesses, or that it will not identify additional control deficiencies or material weaknesses in the future. If the Company is unable to successfully remediate its existing or any future material weaknesses in its ICFR, the accuracy and timing of the Company's financial reporting may be adversely affected, the Company may be unable to maintain compliance with securities laws and Nasdaq listing requirements regarding the timely filing of periodic reports, investors may lose confidence in the Company's financial reporting and the price of its Common Shares may decline.

The accuracy of the Company's financial statements and related disclosures could be affected if the judgements, assumptions or estimates used in the Company's critical accounting policies are inaccurate.

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.

On May 29, 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 surgical technologies for application in MIS and is presently focused on the development of the Enos™ robotic single access surgical system (the "Enos 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 ergonomic interface to the patient cart and a 3D high-definition view of the MIS procedure. 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 surgeons and operating room staff experienced in MIS, consultation with medical technology development firms and input from the Company's Surgeon Advisory Board comprised of surgeons who specialize in MIS. This approach has positioned the Company to design a robotic surgical system intended to include the traditional advantages of robotic-assisted 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 ergonomic user interface and a patient cart facilitating the use of instruments with enhanced dexterity.

The Enos system patient cart has been developed with the goal of delivering 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 an insertion tube with a diameter of approximately 25 millimeters that includes an integrated 2D high-definition camera along with an independent light source that, once inserted, provides visualization of the MIS surgical site for optimal positioning of the insertion tube. Once the insertion tube is positioned in the body, it is docked to a central drive unit of the patient cart and the 3D high-definition endoscopic camera is subsequently 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 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 also incorporates multiple mechanical elements including a mast, a boom and wheels, allowing 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 the continued development of 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 an initial set of 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 its 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.

Regulatory Overview

The Company has used a combination of internal and external resources, including specialized product development firms, to execute the research, development and regulatory plans for the Enos system. Development objectives have been established to support a planned regulatory submission to the FDA for marketing authorization in the U.S., and submittal of a Technical File to a European Notified Body to obtain CE marking, 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 regulatory clearance process includes a Q-Submission (known as a Q-Sub) Program that provides companies an opportunity to interact with and obtain feedback from the FDA on specific aspects of the regulatory process, requirements and planned submissions including IDE applications, 510(k) applications and De Novo classification requests. Certain Q-Submissions, termed Pre-Submissions (known as Pre-Subs), typically include a request for written feedback, and if a 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 non-binding on the FDA, and circumstances related to a company's product or potential risks identified through post-market surveillance of similar products in clinical use may further change the position of the FDA. Furthermore, while the FDA encourages Q-Submissions, there is no assurance that feedback provided from these communications will result in regulatory approval or clearance, nor does it preclude any identified future changes in regulatory pathways.

The Company has established its plans for development and commercialization based on its expectation that the Enos system will be classified as a Class II device and therefore obtain marketing authorization through (i) a premarket notification submitted in accordance with section 510(k) of the U.S. Federal Food, Drug and Cosmetic Act (the "FD&C Act"), commonly known as a 510(k) submission, or (ii) a classification request for novel devices in accordance with section 513(f)(2) of the FD&C Act, commonly known as a De Novo classification submission. While the Company had previously confirmed with the FDA that the Enos system would be suitable for marketing authorization through a 510(k) submission, it recently obtained a written response (the "Written Response") from the FDA to its Request for Information in accordance with section 513(g) of the FD&C Act that indicates the FDA believes, based on information provided to it, that the Enos system is appropriate for classification through the De Novo submission pathway.

Requests for Information made pursuant to Section 513(g) of the FD&C Act require the FDA to provide information about the classification and the regulatory requirements that may be applicable to a particular device. FDA responses to such requests represent the FDA's best judgement about how a device would be regulated, based upon review of information provided by a requester, including the description of the device and its intended use. The FDA's response to a 513(g) request is not a classification decision for a device and does not constitute FDA clearance or approval for commercial distribution. Classification decisions and clearance or approval for marketing require submissions under different sections of the FD&C Act, such as a classification obtained in response to a 510(k) submission or a De Novo submission.

The Company filed the Request for Information in response to communications the Company had with the FDA in which the FDA raised the question of whether robotically-assisted surgical devices ("RASD"), would generally continue to be eligible for classification as Class II devices and the 510(k) submission pathway, or whether De Novo submissions would be more appropriate for such devices. In view of the FDA's Written Response and other information currently available to the Company, the Company will likely proceed with a De Novo classification request for the Enos system, while continuing to evaluate its options for use of the 510(k) submission pathway. If the Company ultimately determines that the 510(k) submission pathway is not available to the Company or would otherwise present other difficulties, the Company intends to continue with 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 a new classification regulation will be established, ultimately allowing the novel device to serve as a predicate for 510(k) submissions of future devices of the same type. Should the De Novo classification request be declined, and the device is therefore classified as a Class III device, a premarket approval application under section 515 of the FD&C Act, also known as a PMA, would be required to market the device, involving a more expensive and time-consuming approval process.

Since the Enos system is presently under development and the Company has not submitted any regulatory applications, it is not possible to predict with certainty the outcome of any review by the FDA and the time required to complete activities necessary for regulatory approval or clearance is not quantifiable at this time. Accordingly, the Company plans on further communications and submissions with the FDA to clarify the requirements for the IDE clinical study protocol and to understand any 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 and/or suggest modifications.

The performance of human surgeries as part of the proposed clinical study 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 Institutional Review Board ("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. Only upon successful completion of the IDE clinical study will the Company be in a position to submit to the FDA an application for marketing authorization.

Previous results achieved by surgeons in operating prototypes in animal and cadaver studies have preliminarily validated the potential for single incision surgeries to be performed with the Enos system. Insights gained from these preclinical studies have directed the Company to make product improvements. In June 2019, the Company commenced preclinical live animal and cadaver studies according to Good Laboratory Practice ("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 human factors evaluation ("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 European 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 Plan

Notwithstanding the preclinical successes achieved in 2019, 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 a series of successful capital raises in the first half of 2020, the Company resumed product development and moved to enhance its internal development program through the establishment of a wholly-owned subsidiary, Titan USA, located in Chapel Hill, NC.

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, actual costs and development times will exceed those published by the Company in its continuous disclosure documents in years prior to 2020. An estimate of the future costs of the development milestones and regulatory phases for the Enos system beyond the year 2022 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 2022 are as set out in the table below:

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	3.2	Q4 2020	Completed
Milestone 2	Launch rebranded product line including logos with trademark pending, literature and presentation templates and new website	0.3	Q4 2020	Completed
Milestone 3**(4)**	Iterate electromechanical design, update sterile adaptors and drape	5.2	Q1 2021	-
Milestone 4**(4)**	Perform additional software development and test system performance	5.4	Q1-Q2 2021	-
Milestone 5	Perform animal lab assessment	0.1	Q2 2021	-
Milestone 6**(4)**	Perform biocompatibility testing of instruments, camera systems and accessories at independent lab	3.8	Q2 2021	-
Milestone 7**(4)**	Perform electrical safety testing for surgeon workstations and patient cart, including electromagnetic compatibility (EMC) and electromagnetic interference (EMI) tests at independent lab	2.7	Q3 2021	-
Milestone 8**(4)**	Perform animal feasibility or GLP study	2.8	Q3 2021	-

Milestone 9[2]	Complete initial build of Enos system IDE units	10.2	Q4 2021	-
Milestone 10[2][4]	Complete system verification testing	3.3	Q4 2021	-
Milestone 11[2][4]	Complete HFE summative testing	1.9	Q4 2021	-
Milestone 12	Update application for IDE as additional testing lab data is received and continue preparation for human confirmatory studies	6.0	Q1 2022	-
Milestone 13	Submit IDE application to FDA			
Milestone 14	Complete secondary build of Enos system IDE units			
Milestone 15	Initiate IDE clinical study	19.0	Q2-Q4 2022	-
Milestone 16	Complete IDE clinical study, data analysis and final report			
Milestone 17[3]	Submit application for FDA marketing authorization	TBD	TBD[5]	-
Milestone 18	Tentative FDA marketing authorization letter	TBD	TBD	-

Notes:

1. The estimated costs above include an allocation of $1.8-2.8 million per quarter of general and administrative costs.
2. Milestones 9, 10 and 11 are expected to be executed during the fourth quarter of 2021 with their projected completion in December 2021. If the Company achieves Medtronic Milestones 3 and 4, it will be entitled to receive the corresponding payments from Medtronic of $10 million and $11 million, respectively, and assuming the completion of the February 2021 Offering, in those circumstances the Company estimates that it will have sufficient funds for the execution and completion of Milestones 9, 10 and 11. If the Company does not achieve Medtronic Milestones 3 and 4, the Company will need to raise additional capital to complete Milestones 10 and 11.
3. The Company anticipates proceeding with FDA marketing authorization as described in the section titled "*The Business – Regulatory*".
4. The costs of Milestones 1 through 11 are forecasted to total $38.9 million, a net increase of $1.6 million from amounts previously forecasted and published in the Company's Management Discussion and Analysis dated November 16, 2020. The increase is primarily related to general and administrative costs, enhancing internal R&D capabilities and other general R&D related costs.
5. The timing of submittal of application for FDA marketing authorization will be determined at a future date, upon completion of IDE clinical studies and following further correspondence with the FDA as described in the section titled "*The Business – Regulatory*".

Due to the nature of technology research and development, there is no assurance that the milestones set forth in the table above will be achieved, and there can be no assurance with respect to the time or resources that may be required to achieve them. The Company expects that additional specific milestones could be identified in the course of the development of the Enos system, and 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.

Intellectual Property and Licensing

The Company's patent portfolio has expanded from 12 issued patents at December 31, 2016 to 70 issued patents and 85 patent applications as of January 31, 2021. 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.

Pursuant to a License Agreement entered into with Covidien LP, a wholly owned subsidiary of Medtronic plc ("Medtronic"), on June 3, 2020, the Company has exclusively licensed a portion of its portfolio to Medtronic, while retaining the world-wide rights to commercialize the licensed technologies for the Company's own business in single access robotic assisted surgery, including the Enos system. Furthermore, pursuant to a Development and License Agreement entered into by the Company with Medtronic on June 3, 2020, the Company will develop certain robotic assisted surgery technologies, that if successfully completed and verified, will be exclusively licensed by Medtronic for license payments of up to $31 million, of which $10 million has already been received by the Company for completion of Medtronic Milestone 1, and a further $21 million will be eligible for receipt upon completion of Medtronic Milestone 3 and Medtronic Milestone 4. The Company would retain the world-wide rights to commercialize the developed technology in its own business, including for use with the Enos system. See "Medtronic" under "Recent Developments".

Operations

The Company maintains its head office at subleased premises in Toronto, Ontario, Canada. During the third quarter of 2019, the Company entered into a lease for premises in Chapel Hill, North Carolina, USA. During the second quarter of 2020, the Company incorporated Titan USA, as a wholly owned subsidiary of the Company, under the General Corporation Law of the State of Delaware and assigned the lease to the new subsidiary. On October 16, 2020, Titan USA entered into a lease amending agreement to expand its premises in Chapel Hill, North Carolina, USA to accommodate the growth in its development team.

The development of both the Enos system and the development work pursuant to the Medtronic development and license agreements (See "*Medtronic*" under "*Recent Developments*") are managed and directed by Titan USA from the Chapel Hill, North Carolina facility. In addition to Titan USA employees, the Company engages subcontractors and consultants to perform design and development, prototyping and manufacturing.

Recent Developments

On June 3, 2020, the Company entered into the Development Agreement with Medtronic in connection with the development of robotic assisted surgical technologies and the separate License Agreement with Medtronic in respect of certain of the Company's already developed technologies.

The Development Agreement provides for the development of robotic assisted surgical technologies for use by both Titan and Medtronic in their respective businesses through the granting of certain licenses to the intellectual property developed thereunder. In addition to retaining certain rights to commercialize the developed technologies, 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 upon the successful completion of Medtronic Milestone 3 and Medtronic Milestone 4. The payments are to be provided as technology milestones are completed and verified and are further identified in the table below. The Development Start Date was June 12, 2020.

Medtronic Milestone(1)	**Deadline**(2)	**Payment (US$)**(3)
Medtronic Milestone 1	Four (4) months from Development Start Date(4) (5)	$10,000,000
Medtronic Milestone 2(6)	Four (4) months from Development Start Date	-
Medtronic Milestone 3	Six (6) months from the later of (a) receipt by us of Payment for Medtronic Milestone 1, (b) receipt by us from Medtronic of Medtronic deliverables required for Medtronic Milestone 3, and (c) receipt by us from Medtronic of confirmation of certain due diligence in respect of our deliverables for Medtronic Milestone 1	$10,000,000
Medtronic Milestone 4	Four (4) months from the later of (a) receipt by us of Payment for Medtronic Milestone 3, (b) receipt by us of Medtronic deliverables for Medtronic Milestone 4, and (c) receipt by us from Medtronic of confirmation of certain due diligence in respect of our deliverables for Medtronic Milestone 3	$11,000,000 (7) (8)

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. As of the date of this document, Medtronic Milestone 1 has been achieved.
4. "Development Start Date" has the meaning ascribed to it in the Development Agreement and as set out above.
5. As of the date of this document, Medtronic Milestone 1 has been achieved on schedule and payment was received.
6. Medtronic Milestone 2 is a non-technology milestone defined as Titan 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. Medtronic Milestone 2 was achieved ahead of the deadline in June 2020.
7. 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.
8. The balance outstanding under the Medtronic Loan (described below) will be offset against the payment for Medtronic Milestone 4.

The Development Agreement provides that a steering committee comprising an equal number of representatives from Titan and Medtronic shall be established to provide oversight regarding the work toward achievement of the milestones. Either party may terminate the 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 terms of the License Agreement, Titan granted Medtronic an exclusive license with regard to certain robotic assisted surgical technologies, including patents and know-how, for a one-time upfront royalty payment of $10 million with no further royalty payments due thereunder. Titan has retained certain rights to the licensed technologies to continue to develop and commercialize those technologies for the Company's own business in single access robotic assisted surgery, including the Enos system.

On April 28, 2020, Titan received gross proceeds of $1.5 million from a senior secured loan (the "Medtronic Loan") provided by an affiliate of Medtronic plc ("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 an amount equal to certain legal, transaction and intellectual property related expenses incurred by Medtronic 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 4, 2023, (ii) the completion of the last milestone under the Development Agreement, or (iii) a Change of Control (as defined in the Note), subject to an accelerated due date under certain adverse conditions. Until repayment of the loan, Medtronic may have one non-voting observer attend meetings of Titan's Board of Directors.

Medtronic Senior Security

Titan has entered into a security agreement dated April 28, 2020 in favor of Medtronic Lender (the "Security Agreement") pursuant to which Titan has granted to Medtronic Lender a security interest in all of the Company's present and future property including all personal property, inventory, equipment and intellectual property. In addition, Medtronic Lender's rights and powers under the Security Agreement include without limitation (a) exercising and enforcing all rights and remedies of a holder of collateral as if Medtronic Lender were the absolute owner of the collateral, (b) collection of any proceeds arising in respect of all of our property pledged as security for the loan, (c) license or sublicense, whether on an exclusive or nonexclusive basis, of any of our intellectual property for such term and on such conditions and in such manner as Medtronic Lender in its sole judgement 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.

Regulatory

The Company has not completed any regulatory submissions for marketing authorization, including a 510(k) submission or a De Novo classification submission with the FDA, and will not be in a position to 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 has recently received the Written Response from the FDA that indicates the FDA believes, based on information provided to it, the Enos system is appropriate for classification through the De Novo submission pathway. The Company plans on further communications and submissions with the FDA to clarify the requirements for planned IDE clinical studies, and any special controls which the FDA may apply, including those that are deemed applicable to RASDs in general. In view of the FDA's Written Response and other information currently available to the Company, it does not appear that the FDA will continue to allow the use of the 510(k) submission pathway for any new RASDs, where device manufacturers can demonstrate that the new device is substantially equivalent to a legally marketed predicate RASD device. Accordingly, the Company will likely proceed with a De Novo classification request, while continuing to evaluate its options for use of the 510(k) submission pathway.

In the event the Company does proceed with a De Novo classification request, additional overall resources, costs and time will likely be required for the Company to proceed with seeking regulatory approval or clearance. While the Company, in view of information currently available to it, does not anticipate any material impact on the milestones and budgets for 2021, until the Company further communicates with the FDA through one or more Q-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.

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.

Pursuant to the second agreement, the Company paid a monthly amount of $250,000 from October through December 2020, a lump sum payment of $2,299,682 in December 2020, $750,000 in January 2021 and will pay a monthly amount of $750,000 in each of February and March 2021. These payments will be applied toward settling the outstanding amounts owed. Assuming successful completion of conditions under the second agreement, the Company is not expected to incur interest on the outstanding amounts after December 2020, and $673,000 of accrued interest is to be forgiven. A gain on settlement related to the accrued interest has been recognized in the quarter ended December 31, 2020.

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. The Company recognized a gain on settlement of $1,839,626 in the year.

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. On December 24, 2020, the Company received notification from Nasdaq that the Company had cured the bid price deficiency and had regained full compliance with all applicable criteria for continued listing and trading on 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 ensuing weeks, the Company gradually transitioned to the new Enos system 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.

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 recognized a right of use asset and a lease liability as required under IFRS 16.

Disclosure Controls and Procedures and Internal Control Over Financial Reporting

Management has designed, or caused to be designed under their supervision, the Company's disclosure controls and procedures to provide reasonable assurance that all relevant information is gathered, recorded, processed, summarized and reported to the Chair / Chief Executive Officer ("CEO") and the Chief Financial Officer ("CFO") of the Company so that appropriate decisions can be made within the time periods specified in securities legislation regarding public disclosure by the Company in its annual filings, interim filings or other documents or reports required to be filed or submitted by it under securities legislation.

Management has also designed internal controls over financial reporting ("ICFR") to provide reasonable assurance regarding the reliability of the Company's financial reporting and the preparation of financial statements for external purposes in accordance with IFRS. Because of its inherent limitations, ICFR can provide only reasonable assurance and may not prevent or detect misstatements. Further, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with policies or procedures may deteriorate.

The CEO and CFO evaluated the effectiveness of the Company's internal controls over financial reporting as at December 31, 2020 and identified the material weaknesses outlined below. The Company plans to address these weaknesses in 2021.

Identified Material Weakness and Remediation Plan

According to the Public Company Accounting Oversight Board (PCAOB) Auditing Standard No. 5, a material weakness is a deficiency or a combination of deficiencies in internal controls over financial reporting, such that there is a reasonable possibility that a material misstatement of the Company's annual or interim financial statements will not be prevented or detected on a timely basis.

During the preparation of its financial statements for the year ended December 31, 2020, management became aware of certain errors in the calculation of asset and liability balances and the appropriate IFRS application and disclosure required for an amendment to a contract with an external development firm. The errors were corrected in the Company's financial results for the three-months ended December 31, 2020.

The material weaknesses identified are:

a) The Company did not have sufficient accounting resources with relevant technical accounting skills to address issues relating to the assessment of IFRS treatment for complex accounting issues, specifically relating to a material amendment to a contract with an external development firm;

b) The Company did not have sufficient accounting resources with relevant technical accounting skills to address and review issues relating to the valuation of warrant liabilities;

c) The Company did not sufficiently design internal controls to provide the appropriate level of oversight regarding the financial recordkeeping and review of the Company's cut-off procedures as they relate to accounts payable and valuation of supplier liabilities.

Remediation Plan for the Material Weaknesses

The errors identified were all non-cash items and were corrected in the financial statements for the year ended December 31, 2020 before they were approved by the Company's audit committee and filed or otherwise disclosed to the public.

The Company has been actively engaged in developing remediation plans to address the identified material weaknesses. The remediation efforts in process or expected to be implemented include the following:

a) Engagement of one or more qualified and independent consulting firms with subject matter experts to assist with the Company's internal accounting and reporting over complex accounting issues;

b) Institution of business systems to support the work associated with the valuation and reporting of the warrant liabilities and other equity-based securities;

c) Engagement of an external consulting firm to assist with increasing the Company's in-house resources to increase the number of qualified personnel involved in financial accounting and reporting.

Despite the material weaknesses, after adjusting the financial statements of the Company as at and for the year ended December 31, 2020 prior to their approval by the Company's audit committee, and filing in compliance with securities regulations or other public disclosure, the Company has concluded that the audited consolidated financial statements as at and for the year ended December 31, 2020 present fairly, in all material respects, the Company's financial position, results of operations, changes in equity and cash flows in accordance with IFRS.

As the Company continues to evaluate and work to improve its internal controls over financial reporting, the Company may determine to take additional measures to address the material weaknesses or determine to supplement or modify certain of the remediation measures described above.

Overall Performance

During the year ended December 31, 2020, the Company secured capital through issuances of equity, and a senior secured loan, receipt of a license payment and a payment related to milestones achieved under the Development Agreement 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 engaged in an additional development program pursuant to the Medtronic Development Agreement.

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 Enos 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 2020 Fiscal Year, the Company raised aggregate gross proceeds of approximately $23,261,930 from financings ($21,009,224 net of closing costs and cash commissions), $2,492,727 from the exercise of 7,257,252 warrants, $189,464 from the exercise of 596,210 of broker 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 2020 Fiscal Year, the Company generated revenue of $10,000,000 from a license agreement and $10,000,000 from a development and license agreement with Medtronic (See "*Recent Developments*") resulting in a net and comprehensive loss of $24,184,657 for the year ended December 31, 2020, compared to a net and comprehensive loss of $41,907,079 for the year ended December 31, 2019. These figures included research and development expenditures of $7,937,171 for 2020 and $51,418,056 for 2019, as well as a gain on settlement of legal action of $1,839,626 and a gain of $673,000 recorded on the forgiveness of interest on the outstanding payables both in 2020, offset by a loss on change in the fair value of warrants of $27,855,678 in 2020 and a gain on change in change in fair value of warrants of $19,800,645 in 2019.

During the 2020 Fiscal Year, the Company had an increase in net cash flows of $24,654,313. This resulted from a use of cash from operating activities of $845,117, cash provided by financing activities of $26,098,798 from the issuance of equity, issuance of a note payable, repayment of lease liabilities, and cash used in investing activities of $599,368 from additions to patents and purchase of property, plant and equipment.

Selected Annual Information

The following table summarizes selected financial data reported by the Company for the years ended December 31, 2020, 2019 and 2018 in accordance with IFRS. The information set forth should be read in conjunction with the respective audited financial statements.

	2020	**2019**	**2018**
Net sales	$20,000,000	-	-
Net and comprehensive loss for the year	$24,184,657	$41,907,079	$22,639,272
Basic & diluted loss per share	$0.36	$1.37	$1.36
Total long-term liabilities	($750,791)	($8,001)	-
Total assets	$29,838,135	$3,381,581	$21,915,164

Significant changes in key financial data from 2019 to 2020 can be attributed to the receipt of proceeds of equity financing, the fluctuations of the fair value of warrants, expenditures in connection with the development of the Company's Enos system and the Company's work in connection with the Development Agreement with Medtronic.

Discussion of Operations

Significant changes in key financial data from the year ended December 31, 2019, through the year ended December 31, 2020, reflect the revenue recognition of the license payment pursuant to the Medtronic License Agreement and the first milestone payment under the Development Agreement as well as the previous suspension of development of the Company's Enos 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.

The Company incurred a net and comprehensive loss of $24,184,657 during the year ended December 31, 2020, compared to a net and comprehensive loss in 2019 of $41,907,079. The decrease in the loss in 2020 of $17,722,422 is primarily due to a decrease of $43,480,885 in research and development expenditures in 2020 offset by an increase of $47,656,323 in losses on the change in valuation of warrants less the $20,000,000 in revenues recorded in the year. Research and development expenditures for the year ended December 31, 2020, were $7,937,171, compared with $51,418,056 for the year ended December 31, 2019.

Total expenses incurred during the year ended December 31, 2020, were $17,054,432. At December 31, 2019, the Company had forecasted total expenses for 2020 to be approximately $38,756,000. The difference between the original forecast and actual expenses incurred is primarily related to reduced research and development expenses as a result of a decrease in available funding. The reduction in costs was approximately $21,702,000, or 56% of total expenses forecasted as of December 31, 2019.

Research and development expenditures (all of which were expensed in the period), for the years ended December 31, 2020, and December 31, 2019, respectively were as follows:

	Year Ended December 31, 2020	**Year Ended December 31, 2019**
Research and Development Expenditures	$ 7,937,171	$ 51,418,056

Research and development expenditures decreased considerably in the year ended December 31, 2020, compared to the same period in 2019. This decrease was primarily due to a decrease in available funding.

Other expenses, excluding the research and development expenses discussed above and excluding interest income, loss or 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, 2020, were $9,117,261, compared to $8,308,221 in 2019. The increase of $809,040 in 2020 is primarily attributable to an increase in amortization from new leases for the Company's newly-created subsidiary in Chapel Hill, North Carolina, interest charges from the Senior Secured Loan with Medtronic, interest charges from an agreement with the Supplier, and professional fees expensed in 2020; partially offset by lower consulting fees, stock-based compensation, and travel.

The Company realized $29,143 of interest income on its cash and cash-equivalent balances during the year ended December 31, 2020, and $115,584 for the same period in 2019. This decrease in interest income is primarily attributed to lower cash balances in its money market account in the first half of 2020 compared to 2019.

Warrant liability issue costs decreased to $1,816,316 for the year ended December 31, 2020, from $2,097,031 for the same period in 2019. The decrease in 2020 is attributed to a reduction of equity capital raised in 2020 and corresponding costs, compared to equity capital raised and corresponding costs for the year ended December 31, 2019.

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 non-cash effects of adjustments in the valuation of outstanding warrant liability.

For the quarter	Net sales	Net and comprehensive loss (gain) from operations	Basic and diluted (gain) loss per share
December 31, 2020	$10,000,000	$20,632,782	$0.25
September 30, 2020	-	$1,640,633	$0.02
June 30, 2020	$10,000,000	$1,143,199	$0.02
March 31, 2020	-	$768,043	$0.02
December 31, 2019	-	$(2,412,863)	$(0.07)
September 30, 2019	-	$1,564,196	$0.05
June 30, 2019	-	$14,472,866	$0.46
March 31, 2019	-	$28,282,880	$1.22

Significant changes in key financial data from the three months ended March 31, 2019, through the three months ended December 31, 2020, reflect the ongoing development of the Company's Enos 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 2020, the Company had net and comprehensive loss of $20,632,782 compared to net and comprehensive gain of $2,412,863 for the same period in 2019. The change of $23,045,645 is primarily attributed to an increase in loss on fair value of warrants in the same period of $29,841,818, and an increase of $3,425,325 in research and development expenses during the period after the Company secured additional financing, offset by $10,000,000 revenue from the License and Development Agreements.

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 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 Milestones 1 and 2, 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 its current development plan for its Enos System Milestones 3 through 9 of the table noted under "*Development Plan*".

During the year ended December 31, 2020, the Company raised aggregate gross proceeds of approximately $23,260,783 from financings ($20,976,485 net of closing costs and cash commissions), $2,492,727 from the exercise of 7,257,252 warrants, $189,464 from the exercise of 596,210 of broker 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.

The Company had cash and cash equivalents on hand of $25,468,805 and accounts payable and accrued liabilities, including the current portion of the lease liability and the note payable, of $6,580,155, excluding warrant liability at December 31, 2020, compared to $814,492 and $11,433,967 respectively, at December 31, 2019. The Company's working capital deficit at December 31, 2020, was $15,948,652 compared to a working capital deficit of $13,305,969, at December 31, 2019. Excluding the non-cash warrant liability, the working capital would have been $20,368,029, compared to a working capital deficit of $9,684,525 at December 31, 2019.

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**
Lease liability	916,560	165,772	646,477	104,310	-
Note payable (1)	1,897,700	1,897,700	-	-	-
Supplier Agreement	1,500,000	1,500,000	-	-	-
Purchase order commitments	10,390,483	10,390,483	-	-	-
Total Contractual Obligations	**14,704,743**	**13,953,955**	**646,477**	**104,310**	**-**

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 $296,046 equal to certain legal, transaction and intellectual property related expenses incurred by Medtronic pursuant to the Medtronic agreements plus $101,654 of accrued interest to January 31, 2021. See "*Recent Developments*".

The table below sets forth the Company's warrants (by series) that were previously issued, and which remain outstanding as of February 20, 2021.

	Issue Date	Expiry Date	Number Issued	Number Outstanding	Exercise Price US $	Exercise Price CDN $
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	5-Dec-17	5-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	2.9200	
Not Listed[2]	21-Mar-19	21-Mar-24	8,455,882	8,455,882	3.9500	
Not Listed	27-Mar-20	27-Mar-25	3,500,000	-	0.1900	
Not Listed	6-May-20	6-Nov-25	2,757,252	-	0.3002	
Not Listed	10-Jun-20	10-Jun-24	9,000,000	-	1.0000	
Not Listed	26-Jan-21	26-Jan-26	3,709,677	3,126,427	2.0000	
			42,049,865	**23,651,178**		

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.

Offerings During 2020

June 2020 Financing

On June 10, 2020, the Company completed a registered offering of 6,500,000 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 Equivalents 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 prior to expiry on June 10, 2024. 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 $0.36268 per Common Shares and 2,757,252 unregistered Common Shares purchase warrants (each, a "May 2020 Warrant"), resulting in gross proceeds of $2,000,000 ($1,575,167 net of closing cash costs including cash commission described below). Each May 2020 Warrant is exercisable to purchase one Common Share at an exercise price of $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 $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*".

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 (each, a "March 2020 Warrant"),, resulting in total gross proceeds of approximately $1.2 million ($0.862 million net of closing cash costs including cash commission described below). Each March 2020 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 27, 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. Under the December 2019 Common Share Purchase Agreement, the balance remaining on Aspire's commitment is 4,348,729 Common Shares (wih maximum value of $32.9 million), 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 2020 Fiscal 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 February 20, 2021:

Type of Securities	**Number of Common Shares issued or issuable upon conversion**
Common Shares	99,939,390
Stock options(1)	2,894,392
Warrants	23,651,178
Broker warrants(2)	1,918,695

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. Subsequent to December 31, 2020, these options were exercised.
- 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.
- On December 10, 2020, the Company issued 623,000 stock options with an exercise price of US $1.31 and 4,000 stock options with an exercise price of CDN $1.70 to certain employees for services rendered. These options vest annually over four years and have a contractual life of 7 years.

(2) A total of 1,918,695 broker warrants previously issued in connection with offerings of securities by the Company in March 2019, March 2020, May 2020, June 2020 and January 2021 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.
- Pursuant to the January 2021 Offering, in addition to the cash commission paid to the agents, 519,354 broker warrants were issued to the agents. Each broker warrant entitles the holder thereof to acquire one common share at the price of US $1.9375 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, 2020 including the comparative information presented in the audited financial statements for the year ended December 31, 2019.

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. At December 31, 2020, the Company had a shareholders' deficiency of $13,809,492 and current year losses of $24,184,657.

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 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) incremental borrowing rate used to measure lease liabilities, (b) the fair value estimate of the measurement of lease, warrant liabilities and note payable, and (c) the assessment of the Company's ability to meet its obligations as they come due. While management believes that the estimates and assumptions are reasonable, actual results may differ.

(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 (US 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 December 31, 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 year ended December 31, 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 fair value, 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, 2020

Warrants Exercised

Since December 31, 2020, and up to and including February 20, 2021, the Company has received $9,978,557 from the exercise of 8,583,250 warrants and 732,375 broker warrants. No material transaction relating to the exercise of warrants has occurred from February 20, 2021 to the date of this filing.

Options Exercised

On February 17, 2021, the Company received $14,285 on the exercise of 19,568 options.

February 2021 Equity Offering

On February 3, 2021, the Company entered into an underwriting agreement in respect of a "bought deal" offering of 8,335,000 units of the Company ("February 2021 Units") at price of $2.40 per February 2021 Unit (the "Offering Price") for aggregate gross proceeds of $20,004,000 ($18,334,512 net of closing costs) (the "February 2021 Offering"). Each February 2021 Unit consists of one Common Share and one half (1/2) of one Common Share purchase warrant (each whole warrant, a "February 2021 Warrant"). Each February 2021 Warrant will be exercisable to acquire one Common Share at an exercise price of $3.00 per share for a period of 24 months after the closing date. Pursuant to the underwriting agreement, the underwriter will receive: (i) a cash fee equal to 7% of the gross proceeds of the offering, (including February 2021 Units sold pursuant to the exercise of the overallotment option), and (ii) a number of broker warrants equal to 7% of the total number of February 2021 Units sold in the offering (including units sold pursuant to the exercise of the over-allotment option), each entitling the holder to acquire one Common Share at $3.00 for a period of 24 months after the closing date. The Company has granted the underwriter an option, exercisable in whole or in part and from time to time at any time until 30 days after the closing of the offering, to purchase up to an additional number of units equal to 15% of the number of February 2021 Units sold pursuant to the offering at the offering price. The Offering is expected to close on or about February 24, 2021.

A condition of the February 2021 Underwriting Agreement restricts the Company from issuing, without prior agreement from the underwriter, any Common Shares, or any securities convertible into or exchangeable for or exercisable to acquire Common Shares for a period commencing on the date of the February 2021 Underwriting Agreement and ending ninety (90) days following the closing date, except under pre-existing rights or obligations. This would include restricting the issuance of shares under another previously signed purchase agreement (see the December 2019 Common Share Purchase Agreeement above).

The net proceeds from the February 2021 Offering will be used to fund the development of the Company's robotic surgical technologies and for general working capital.

January 2021 Equity Offering

On January 26, 2021, the Company closed an offering of 6,451,613 units of the Company ("January 2021 Units") sold on a "bought deal" basis, at price of $1.55 per January 2021 Unit for aggregate gross proceeds of $10,000,000 (the "January 2021 Offering"). The underwriter also exercised its over-allotment option for an additional 967,741 January 2021 Units and additional gross proceeds of $1,500,000. Each January 2021 Unit consists of one Common Share and one half (1/2) of one Common Share purchase warrant (each whole warrant, a "January 2021 Warrant"). Each January 2021 Warrant is exercisable to acquire one Common Share at an exercise price of $2.00 per share until January 26, 2026. Pursuant to the underwriting agreement, the underwriter received: (i) a cash fee equal to 7% of the gross proceeds of the offering, (including January 2021 Units sold pursuant to the exercise of the overallotment option), and (ii) a number of broker warrants equal to 7% of the total number of January 2021 Units sold in the offering (including units sold upon exercise of the over-allotment option), each entitling the holder to acquire one Common Share at $1.9375 for a period of 24 months after the closing date.

Outlook

During the year ended December 31, 2020, the Company earned revenue and secured capital in an amount to enable it to resume product development. Since December 31, 2020, the Company has secured additional capital to allow it to meet its current obligations and complete product development and regulatory plans for its Enos system through the end of 2021. The Company is expecting to secure additional capital upon completion of the Februrary 2021 offering.

The Company now has sufficient cash on hand to meet all its current obligations as they become due, including its obligations under the Development Agreement, the Licence Agreement and the Medtronic Loan and is expected to satisfy its current development plan for its Enos System Milestones 3 through 9 of the table noted under "*Development Plan*".

With its current financial resources and assuming the Company does not receive payments for the completion of Medtronic Milestones 3 and 4, yet incurs the costs associated with Medtronic Milestone 3, the Company currently has sufficient capital on hand to complete Milestones 3 through 9 of the table noted under "*Development Plan*".

With its current financial resources and the net proceeds to be received from the February 2021 Offering, and assuming the Company does not receive payments for the completion of Medtronic Milestones 3 and 4, yet incurs the costs associated with Medtronic Milestone 3, the Company expects to be able to continue operations for 16 months and complete Milestones 3 through 14.

If the Company achieves Medtronic Milestones 3 and 4 and receives the payments from Medtronic in respect of those milestones, with the Company's current financial resources and the net proceeds from the February 2021 Offering, the Company expects to have the financial resources to be able to continue operations for 22 months and complete Milestones 3 through 16.

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 2020 fiscal year, is available on SEDAR at www.sedar.com and on EDGAR at www.sec.gov.

Exhibit 99.3

FORM 52-109F1
CERTIFICATION OF ANNUAL FILINGS FULL CERTIFICATE

I, **David McNally,** ***President and Chief Executive Officer, Titan Medical Inc.,*** certify the following:

1. ***Review:*** I have reviewed the AIF, if any, annual financial statements and annual MD&A, including, for greater certainty, all documents and information that are incorporated by reference in the AIF (together, the "annual filings") of **Titan Medical Inc.** (the "issuer") for the financial year ended**December 31, 2020**.

2. ***No misrepresentations:*** Based on my knowledge, having exercised reasonable diligence, the annual filings do not contain any untrue statement of a material fact or omit to state a material fact required to be stated or that is necessary to make a statement not misleading in light of the circumstances under which it was made, for the period covered by the annual filings.

3. ***Fair presentation:*** Based on my knowledge, having exercised reasonable diligence, the annual financial statements together with the other financial information included in the annual filings fairly present in all material respects the financial condition, financial performance and cash flows of the issuer, as of the date of and for the periods presented in the annual filings.

4. ***Responsibility:*** The issuer's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (DC&P) and internal control over financial reporting (ICFR), as those terms are defined in National Instrument 52-109 *Certification of Disclosure in Issuers' Annual and Interim Filings*, for the issuer.

5. ***Design:*** Subject to the limitations, if any, described in paragraphs 5.2 and 5.3, the issuer's other certifying officer(s) and I have, as at the financial year end

(a) designed DC&P, or caused it to be designed under our supervision, to provide reasonable assurance that

(i) material information relating to the issuer is made known to us by others, particularly during the period in which the annual filings are being prepared; and

(ii) information required to be disclosed by the issuer in its annual filings, interim filings or other reports filed or submitted by it under securities legislation is recorded, processed, summarized and reported within the time periods specified in securities legislation; and

(b) designed ICFR, or caused it to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with the issuer's GAAP.

5.1 ***Control framework:*** The control framework the issuer's other certifying officer(s) and I used to design the issuer's ICFR is Integrated Framework (COSO).

5.2 ***ICFR – material weakness relating to design:*** The issuer has disclosed in its annual MD&A for each material weakness relating to design existing at the financial year end

(a) a description of the material weakness;

(b) the impact of the material weakness on the issuer's financial reporting and its ICFR; and

(c) the issuer's current plans, if any, or any actions already undertaken, for remediating the material weakness.

5.3 ***Limitation on scope of design: N/A***

6. ***Evaluation:*** The issuer's other certifying officer(s) and I have

(a) evaluated, or caused to be evaluated under our supervision, the effectiveness of the issuer's DC&P at the financial year end and the issuer has disclosed in its annual MD&A our conclusions about the effectiveness of DC&P at the financial year end based on that evaluation; and

(b) evaluated, or caused to be evaluated under our supervision, the effectiveness of the issuer's ICFR at the financial year end and the issuer has disclosed in its annual MD&A

(i) our conclusions about the effectiveness of ICFR at the financial year end based on that evaluation; and

(ii) for each material weakness relating to operation existing at the financial year end

(A) a description of the material weakness;

(B) the impact of the material weakness on the issuer's financial reporting and its ICFR; and

(C) the issuer's current plans, if any, or any actions already undertaken, for remediating the material weakness.

7. ***Reporting changes in ICFR:*** The issuer has disclosed in its annual MD&A any change in the issuer's ICFR that occurred during the period beginning on January 1, 2020 and ended December 31, 2020 that has materially affected, or is reasonably likely to materially affect, the issuer's ICFR.

8. ***Reporting to the issuer's auditors and board of directors or audit committee:***The issuer's other certifying officer(s) and I have disclosed, based on our most recent evaluation of ICFR, to the issuer's auditors, and the board of directors or the audit committee of the board of directors any fraud that involves management or other employees who have a significant role in the issuer's ICFR.

Date: February 20, 2021

*(*SIGNED*) "David McNally"*
President and Chief Executive Officer

Exhibit 99.4

FORM 52-109F1
CERTIFICATION OF ANNUAL FILINGS FULL CERTIFICATE

I, ***Monique Delorme, Chief Financial Officer, Titan Medical Inc.,*** certify the following:

1. ***Review:*** I have reviewed the AIF, if any, annual financial statements and annual MD&A, including, for greater certainty, all documents and information that are incorporated by reference in the AIF (together, the "annual filings") of **Titan Medical Inc.** (the "issuer") for the financial year ended**December 31, 2020**.

2. ***No misrepresentations:*** Based on my knowledge, having exercised reasonable diligence, the annual filings do not contain any untrue statement of a material fact or omit to state a material fact required to be stated or that is necessary to make a statement not misleading in light of the circumstances under which it was made, for the period covered by the annual filings.

3. ***Fair presentation:*** Based on my knowledge, having exercised reasonable diligence, the annual financial statements together with the other financial information included in the annual filings fairly present in all material respects the financial condition, financial performance and cash flows of the issuer, as of the date of and for the periods presented in the annual filings.

4. ***Responsibility:*** The issuer's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (DC&P) and internal control over financial reporting (ICFR), as those terms are defined in National Instrument 52-109 *Certification of Disclosure in Issuers' Annual and Interim Filings*, for the issuer.

5. ***Design:*** Subject to the limitations, if any, described in paragraphs 5.2 and 5.3, the issuer's other certifying officer(s) and I have, as at the financial year end

(a) designed DC&P, or caused it to be designed under our supervision, to provide reasonable assurance that

(i) material information relating to the issuer is made known to us by others, particularly during the period in which the annual filings are being prepared; and

(ii) information required to be disclosed by the issuer in its annual filings, interim filings or other reports filed or submitted by it under securities legislation is recorded, processed, summarized and reported within the time periods specified in securities legislation; and

(b) designed ICFR, or caused it to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with the issuer's GAAP.

5.1 ***Control framework:*** The control framework the issuer's other certifying officer(s) and I used to design the issuer's ICFR is Integrated Framework (COSO).

5.2 ***ICFR – material weakness relating to design:*** The issuer has disclosed in its annual MD&A for each material weakness relating to design existing at the financial year end

(a) a description of the material weakness;

(b) the impact of the material weakness on the issuer's financial reporting and its ICFR; and

(c) the issuer's current plans, if any, or any actions already undertaken, for remediating the material weakness.

5.3 ***Limitation on scope of design: N/A***

6. ***Evaluation:*** The issuer's other certifying officer(s) and I have

(a) evaluated, or caused to be evaluated under our supervision, the effectiveness of the issuer's DC&P at the financial year end and the issuer has disclosed in its annual MD&A our conclusions about the effectiveness of DC&P at the financial year end based on that evaluation; and

(b) evaluated, or caused to be evaluated under our supervision, the effectiveness of the issuer's ICFR at the financial year end and the issuer has disclosed in its annual MD&A

(i) our conclusions about the effectiveness of ICFR at the financial year end based on that evaluation; and

(ii) for each material weakness relating to operation existing at the financial year end

(A) a description of the material weakness;

(B) the impact of the material weakness on the issuer's financial reporting and its ICFR; and

(C) the issuer's current plans, if any, or any actions already undertaken, for remediating the material weakness.

7. ***Reporting changes in ICFR:*** The issuer has disclosed in its annual MD&A any change in the issuer's ICFR that occurred during the period beginning on **January 1, 2020 and ended December 31, 2020** that has materially affected, or is reasonably likely to materially affect, the issuer's ICFR.

8. ***Reporting to the issuer's auditors and board of directors or audit committee:*** The issuer's other certifying officer(s) and I have disclosed, based on our most recent evaluation of ICFR, to the issuer's auditors, and the board of directors or the audit committee of the board of directors any fraud that involves management or other employees who have a significant role in the issuer's ICFR.

Date: February 20, 2021

(SIGNED) *"Monique Delorme"*
Chief Financial Officer

Exhibit 99.5

Titan Medical Reports Year-End 2020 Financial Results

TORONTO--(BUSINESS WIRE)--February 22, 2021--Titan Medical Inc. (“Titan” or the “Company”) (TSX: TMD) (Nasdaq: TMDI), a medical device company focused on the design and development of surgical technologies for robotic single access surgery, today announced the release of its annual financial results for the years ended December 31, 2020 and 2019. During the year ended December 31, 2020, the Company generated revenue of $20.0 million, resulting from development and license agreements with Medtronic plc, and raised aggregate net proceeds of approximately $22.0 million from equity financings and approximately $2.7 million from the exercise of warrants. The Company also received a $1.5 million 8% senior secured loan from an affiliate of Medtronic.

On December 31, 2020, the Company had cash and cash equivalents of approximately $25.5 million, compared to approximately $0.8 million on December 31, 2019. Since December 31, 2020, the Company has received approximately $10.0 million from the exercise of warrants and net proceeds of approximately $10.2 million from a financing which closed on January 26, 2021. The Company’s cash position was $42.5 million on January 31, 2021. In addition, the Company has also announced another financing with aggregate gross proceeds of $20.0 million, which is expected to close by the end of February 2021.

“The progress made in the second half of 2020 resulted in an incredible year of accomplishments to position Titan for success. Recently announced financing arrangements and warrant exercises add to that progress, further strengthening our cash position to support the development of the Enos™ robotic single access surgical system, as we prepare to commence human clinical studies.” said David McNally, President and Chief Executive Officer of Titan.

“During 2020, we also executed a license agreement and a separate development and license agreement with Medtronic, resulting in the Company’s first revenue of $20.0 million, by way of license payments. We believe Titan is in an excellent position to validate our vision of providing an innovative single access robotic surgical system. We are proud of our progress and recognize that our success is a direct result of the commitment and hard work of our entire team.”

Business highlights for the fourth quarter of 2020 and recent weeks include:

- On October 7, 2020, the Company announced the election of Paul Cataford, Anthony J. Giovinazzo, and Cary G. Vance as independent members to its board of directors.
- On October 26, 2020, the Company announced the achievement of a $10.0 million technical milestone under a development and license agreement with Medtronic.
- David McNally, President and CEO of Titan, presented a corporate overview and the Enos surgical system to a live virtual audience at the Benzinga Global Small Cap conference on December 9, 2020.
- On December 24, 2020, the Company received written notification from The Nasdaq Stock Market LLC that it had cured the bid price deficiency and regained full compliance with all applicable criteria for continued listing and trading on The Nasdaq Capital Market.
- On December 30, 2020, the Company announced that it received a written response from the U.S. Food & Drug Administration to its Request for Information in accordance with Section 513(g) of the U.S. Federal Food, Drug and Cosmetic Act, indicating that while the FDA's response does not constitute a classification decision, based on information provided to the agency, the Enos system is appropriate for classification through the De Novo pathway.
- On January 26, 2021, the Company announced the closing of an offering of 6,451,613 units of the Company sold on a "bought deal" basis whereby Bloom Burton Securities Inc. acted as underwriter for the offering and exercised its over-allotment option in full for an additional 967,741 units resulting in aggregate gross proceeds to the Company of approximately $11.5 million.
- On February 2, 2021, the Company announced it had entered into an agreement with underwriters Bloom Burton Securities Inc. pursuant to which Bloom Burton agreed to purchase, on a "bought deal" basis, 6,250,000 units of the Company at a price of $2.40 per Unit for aggregate gross proceeds of $15.0 million.
- On February 3, 2021, the Company announced it had entered into an agreement with Bloom Burton Securities Inc. to increase the amount of its previously announced offering of February 2, 2021, to 8,335,000 units of the Company at a price of $2.40 for aggregate gross proceeds of $20.0 million.
- On February 16, 2021, the Company launched “Titan Living Labs”, a new media-rich addition to its website providing access to stories behind the design, engineering and innovative technologies employed by Titan Medical’s engineering team for the Enos surgical system.

Financial results for the twelve months ended December 31, 2020 include:

Net and comprehensive loss for the year ended December 31, 2020, was $24.2 million or $0.36 per share, compared to a net and comprehensive loss of $41.9 million, or $1.37 per share, for the year ended December 31, 2019. These figures included research and development expenditures of $7.7 million for 2020 and $51.4 million for 2019, as well as a non-cash loss on change in the fair value of warrants of $27.9 million in 2020 and a non-cash gain on change in fair value of warrants of $19.8 million in 2019. The Company also had an aggregate gain on settlements with suppliers of $2.5 million in 2020.

The net and comprehensive loss for the three months ended December 31, 2020 was $20.6 million, compared with a net and comprehensive gain of $2.4 million, for the three months ended December 31, 2019. The comparative increase in comprehensive loss was primarily due to an increase in non-cash loss on the fair value of warrants of $29.8 million, and an increase of $3.4 million in research and development expenses after the Company secured additional financing, offset by $10.0 million in revenue from the development and license agreement with Medtronic, all in the three months ended December 31, 2020.

Cash and cash equivalents as of December 31, 2020 were $25.5 million, compared with cash and cash equivalents of $0.8 million as of December 31, 2019. At December 31, 2020, current liabilities, excluding warrant liability, were $6.6 million compared with $11.4 million as of December 31, 2019.

At December 31, 2020, the Company had working capital of $20.4 million compared to a working capital deficit of $9.7 million at December 31, 2019.

The Company has disclosed in its management's discussion and analysis in respect of the 2020 annual financial year ("2020 MD&A") that during the preparation of its financial statements for the year ended December 31, 2020, management became aware of certain errors in the calculation of asset and liability balances and the appropriate IFRS application and disclosure required for an amendment to a contract with an external development firm. After adjusting the financial statements of the Company as at and for the year ended December 31, 2020, the Company has concluded that the audited consolidated financial statements as at and for the year ended December 31, 2020 present fairly, in all material respects, the Company's financial position, results of operations, changes in equity and cash flows in accordance with IFRS.

As the 2020 MD&A outlines, the Company identified a material weakness in its controls in 2020 and has developed a remediation plan which includes the following: i) engagement of one or more qualified and independent consulting firms with subject matter experts to assist with the Company's internal accounting and reporting over complex accounting issues; ii) implementation of business information systems to support the work associated with the valuation and reporting of the warrant liabilities and other equity-based securities; and iii) the hiring of additional resources.

The consolidated financial statements for the year ended December 31, 2020, and December 31, 2019, have been prepared in accordance with International Financial Reporting Standards and International Accounting Standards as issued by the International Accounting Standards Board ("IASB") and interpretations (collectively "IFRS") and may be viewed at www.sedar.com and at www.sec.gov.

Investor Audio Webcast Information

Titan Medical will host an investor audio webcast at 4:30 p.m. ET today (February 22, 2021) to discuss the Company's annual financial results for the years ended December 31, 2020 and 2019, and business highlights. The webcast can be accessed in the Investor Relations section on the Company's website at www.titanmedicalinc.com.

About Titan

Titan Medical Inc., a medical device company headquartered in Toronto, is focused on developing robotic assisted technologies for application in single access surgery. The Enos™ system, by Titan Medical, is being developed with dual 3D and 2D high-definition vision systems, multi-articulating instruments, and an ergonomic surgeon workstation. With the Enos system, Titan intends to initially pursue gynecologic surgical indications.

Certain of Titan's robotic assisted surgical technologies and related intellectual property have been licensed to Medtronic plc, while retaining world-wide rights to commercialize the technologies for use with the Enos system.

Enos™ is a trademark of Titan Medical Inc.

For more information, visit www.titanmedicalinc.com.

Forward-Looking Statements

This news release contains “forward-looking statements” within the meaning of applicable Canadian and U.S. securities laws. Such statements reflect the current expectations of management of the Company’s future growth, results of operations, performance and business prospects and opportunities. Wherever possible, words such as “may”, “would”, “could”, “will”, “anticipate”, “believe”, “plan”, “expect”, “intend”, “estimate”, “potential for” and similar expressions have been used to identify these forward-looking statements, including references to: the Company being focused on the design and development of surgical technologies for robotic single access surgery; the Company’s 2020 accomplishments position the Company for success; the Company’s preparation to commence human clinical studies; the Company’s belief that it is in an excellent position to validate its vision of providing an innovative single access robotic surgical system; the FDA’s indication that the Enos system is appropriate for classification through the De Novo pathway; the Company’s financing with aggregate gross proceeds of $20.0 million; the expected engagement of one or more qualified and independent consulting firms, the expected implementation of business information systems to support the work associated with the valuation and reporting of the warrant liabilities and other equity-based securities, and the expected hiring of additional resources; the Enos system being developed with dual 3D and 2D high-definition vision systems, multi-articulating instruments, and an ergonomic surgeon workstation; Titan’s intention to initially pursue gynecologic surgical indications with the Enos system; the license of certain of Titan’s robotic assisted surgical technologies and related intellectual property to Medtronic plc, while retaining world-wide rights to commercialize the technologies for use with the Enos system. These statements reflect management’s current beliefs with respect to future events and are based on information currently available to management. Forward-looking statements involve significant risks, uncertainties and assumptions. Many factors could cause the Company’s actual results, performance or achievements to be materially different from any future results, performance or achievements that may be expressed or implied by such forward-looking statements, including, without limitation, those listed in the “Risk Factors” section of the Company’s Annual Report on Form 20-F for the fiscal year ended December 31, 2019 and the Company’s 2020 annual management’s discussion and analysis (which may be viewed at www.sedar.com and at www.sec.gov). Should one or more of these risks or uncertainties materialize, or should assumptions underlying the forward-looking statements prove incorrect, actual results, performance, or achievements may vary materially from those expressed or implied by the forward-looking statements contained in this news release. These factors should be considered carefully, and prospective investors should not place undue reliance on the forward-looking statements. Although the forward-looking statements contained in the news release are based upon what management currently believes to be reasonable assumptions, the Company cannot assure prospective investors that actual results, performance or achievements will be consistent with these forward-looking statements. Except as required by law, the Company expressly disclaims any intention or obligation to update or revise any forward-looking statements whether as a result of new information, future events or otherwise.

Contacts

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