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 May 2022

Commission File Number: **001-38524**

Titan Medical Inc.

(Exact Name of Registrant as Specified in Charter)

76 Berkely Street
Toronto, Ontario M5A 2W7
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.

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: May 12, 2022

By: /s/ Stephen Lemieux
Name: Stephen Lemieux
Title: Chief Financial Officer

EXHIBIT INDEX

99.1	News Release dated May 12, 2022
99.2	Interim Financial Statements - March 31, 2022
99.3	MD&A - March 31, 2022
99.4	Certification of interim filings - CEO
99.5	Certification of interim filings - CFO

TITAN MEDICAL

Titan Medical Reports Financial Results for the First Quarter 2022

Manufacturing Team and Capabilities Continue to Expand

TORONTO, May 12, 2022 - Titan Medical Inc. (Nasdaq: TMDI; TSX: TMD), a medical device company focused on the development and commercialization of innovative surgical technologies for single access robotic-assisted surgery (RAS), today announced financial results for the three months ended March 31, 2022.

“The entire team is focused on driving performance and progress supporting our IDE application submission milestone. We are also starting to prepare for the forthcoming commercialization of the Enos single-access RAS platform for gynecological surgery, our initial target indication for use,” stated Paul Cataford, Interim President, CEO and Board Chair. “We are working closely with Benchmark on the capital equipment build of six Enos systems and have expanded our team and capability for our in-house production of instruments and cameras at our Chapel Hill facility. These capital units, instruments and cameras will go into validation and verification testing in late summer,” concluded Mr. Cataford.

The company remains on track with the De Novo regulatory process for marketing authorization with the U.S. Food and Drug Administration (FDA). Utilizing the Q-Submission Program, the company has engaged in ongoing dialogue with the FDA clarifying requirements in an effort to mitigate against timeline risks. The company plans to file the IDE application with the FDA in the first quarter of 2023 and anticipates receiving a response on the IDE from the FDA in the first half of 2023. Following IDE approval, Titan expects the IDE clinical study to proceed and be completed in time for submission of a De Novo classification request in 2024. Commercial launch of the Enos system is scheduled to begin upon receipt of marketing authorization from the FDA, anticipated in early 2025.

Recent Company Activities and Progress

- *Announced Purchase Order with Medtronic plc*
  - Purchase order covers the purchase of instruments and cameras that will be used in preclinical activities and the evaluation of Titan Medical as a potential manufacturing and supply partner for Medtronic.

- *Completed additional animal lab*
  - Additional surgeon validation was gained during a recent animal lab where Titan received positive feedback on improvements on the vision system and on electrical energy instrumentation. New insights on laparoscopic surgeon ease of adoption to robotic surgery were also noted, which the company intends to address in training programs.

- *Continued communications with the FDA via Q-submission process*
  - The company submitted a Q-submission and completed a conference call with the FDA, as part of its ongoing communications plan to obtain additional guidance from the FDA. The company anticipates another Q-submission before the end of the second quarter.

- *Ongoing product development and transfer to manufacturing*
  - The company completed the design transfer of capital equipment and is working to finalize the selection for contract manufacturers for draping and consumables.

- *CEO search progress*
  - The board’s ad hoc CEO selection committee has met with a number of qualified candidates in its search for a permanent CEO to replace Interim President and CEO Mr. Cataford.

- *Evaluating options to address Nasdaq notification regarding minimum bid price deficiency*
  - In addition to reviewing its options, the company continues to try to regain compliance with Nasdaq Rule 5550(a)(2) prior to the June 28, 2022 deadline.

- *Paul Cataford presented and participated in the Bloom Burton & Co Healthcare Investor Conference in Toronto on May 2, 2022*

Financial Highlights

As of March 31, 2022, Titan had cash and cash equivalents of $30.1 million, compared to $32.3 million at December 31, 2021.

For the three months ended March 31, 2022, R&D expenses increased to $9.4 million compared to $7.6 million for the for the three months ended March 31, 2021. In the quarter, the Company’s R&D expenses were focused on finishing product development and transferring key components on the Enos System to manufacturing. In the comparative period, R&D expenses related to the development of the Enos System and the development work required to achieve the milestones under the Development Agreement with Medtronic.

G&A expenses decreased to $2.5 million for the three months ended March 31, 2022 compared to $4.1 million for the three months ended March 31, 2021. The decrease in G&A expenses in the quarter is related to a decrease in professional and consulting fees of $0.9 million and a decrease in stock-based compensation of $0.2 million.

The company's interim financial statements and MD&A are available at www.sedar.com and/or at www.sec.gov.

Investor Audio Webcast Information

Titan Medical will host an investor audio webcast at 8:30 a.m. ET today (May 12, 2022) to discuss the company's financial results for the three months ended March 31, 2022, and recent business highlights. The webcast can be accessed via the Investor Relations section of the company's website www.titanmedicalinc.com.

About Titan Medical

Titan Medical Inc. (Nasdaq: TMDI; TSX: TMD), a medical device company headquartered in Toronto, Ontario and with operations in Chapel Hill, North Carolina, is focused on enhancing robotic assisted surgery using innovative technology through a single access point. The Enos™ robotic single access surgical system is being developed with an ergonomic focus to provide a surgical experience that imitates real-life movements that surgeons demand and includes multi-articulating instruments designed to allow surgeons an increased range of motion in a confined space, with dexterity and the ability to exert the forces necessary to complete common surgical tasks. With the Enos system, Titan intends to initially pursue gynecologic surgical indications.

Enos™ is a trademark of Titan Medical Inc.

For more information, visit www.titanmedicalinc.com and follow @TitanMedical on Twitter and LinkedIn.

Forward-Looking Statements

This news release contains "forward-looking statements" within the meaning of applicable Canadian and U.S. securities laws, which reflect the current expectations of management of the company's future growth, results of operations, performance, and business prospects and opportunities. Forward-looking statements are frequently, but not always, identified by words such as "may", "would", "could", "will", "anticipate", "believe", "plan", "expect", "intend", "estimate", "potential for" and similar expressions, although these words may not be present in all forward-looking statements. Forward-looking statements that appear in this release may include, without limitation, references to: the company's focus on the development and commercialization of its innovative surgical technologies for single access robotic-assisted surgery; the company's plans and estimation of completing product and software development, testing and verification of the Enos system; the company's preparation for commercialization of the Enos system; the company's work with Benchmark on the capital equipment build; the validation and verification testing in late summer of the capital units, instruments and cameras; the company remaining on track with the De Novo regulatory process for marketing authorization with the U.S. FDA; the company's ongoing dialogue with the FDA and plans with respect to regulatory submissions, including for an IDE and De Novo application; the company's utilization of the Q-Submission program to mitigate against timeline risks, including filing a Q-Submission before the end of the second quarter; the company's plans for clinical studies; the company's expectations with respect to timing for the commercial launch of the Enos system; the company's potential as a manufacturing and/or supply partner for Medtronic; the company's evaluation and selection of a contract manufacturers for draping and consumables; the company's intention to host an upcoming investor audio webcast; the Enos robotic single access surgical system being developed with an ergonomic focus to provide a surgical experience that imitates real-life movements that surgeons demand; and that Titan intends to initially pursue gynecologic surgical indications. These statements reflect management's current beliefs 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, 2021, 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.

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TITAN MEDICAL

TITAN MEDICAL INC.

2022 First Quarter
Condensed Interim Consolidated
Financial Statements
(Unaudited)

TITAN MEDICAL INC.
Condensed Interim Consolidated Statements of Financial Position
(Unaudited)
(in thousands of US dollars)

	Notes	As at March 31, 2022	As at December 31, 2021
ASSETS			
CURRENT ASSETS			
Cash and cash equivalents		**$ 30,112**	$ 32,306
Accounts receivable		**-**	8,280
Prepaid expenses, deposits and receivables		**1,843**	3,076
TOTAL CURRENT ASSETS		**31,955**	43,662
NON-CURRENT ASSETS			
Right-of-use assets, net	3	**1,091**	1,177
Property, plant and equipment, net		**516**	464
Patent rights, net		**1,966**	1,919
TOTAL NON-CURRENT ASSETS		**3,573**	3,560
TOTAL ASSETS		**$ 35,528**	$ 47,222
LIABILITIES			
CURRENT LIABILITIES			
Accounts payable and accrued liabilities		**$ 5,542**	$ 5,616
Current portion of lease obligations	3	**354**	346
Warrant derivative liability	4	**2,021**	4,930
TOTAL CURRENT LIABILITIES		**7,917**	10,892
NON-CURRENT LIABILITIES			
Deferred income tax liabilities		**56**	56
Lease obligations	3	**890**	981
TOTAL LIABILITIES		**8,863**	11,929
SHAREHOLDERS' EQUITY (DEFICIT)			
Share capital	5	**263,364**	263,364
Contributed surplus – warrant reserve	6	**11,749**	11,749
Contributed surplus		**14,660**	14,067
Deficit		**(263,108)**	(253,887)
TOTAL SHAREHOLDERS' EQUITY (DEFICIT)		**26,665**	35,293
TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY		**$ 35,528**	$ 47,222

Commitments (Note 12)

Approved on behalf of the Board:

signed	**signed**
Paul Cataford	Cathy Steiner
Interim President & CEO-Board Chair	Chair, Audit Committee

See accompanying notes to these condensed interim consolidated financial statements.

TITAN MEDICAL INC.
Condensed Interim Consolidated Statements of Net Loss and Comprehensive Loss
(Unaudited)
(in thousands of US dollars, share and per share amounts)

	Note	Three Months Ended	
		March 31, 2022	March 31, 2021
Revenues		**$ -**	$ 50
Expenses			
Research and development		**9,428**	7,640
General and administrative		**2,534**	4,066
Depreciation and amortization	7	**156**	97
Total expenses		**12,118**	11,803
Net loss from operations		**(12,118)**	(11,753)
Other (Income) Expenses			
Finance income		**(40)**	(13)
Finance expense		**18**	-
Foreign exchange loss		**34**	44
(Gain) loss on fair value of warrant	4	**(2,909)**	3,010
Total other (income) expenses		**(2,897)**	3,041
Net and comprehensive loss		**$ (9,221)**	$ (14,794)
Basic and diluted loss per share	9	**$ (0.08)**	$ (0.15)

See accompanying notes to these condensed interim consolidated financial statements.

TITAN MEDICAL INC.
Condensed Interim Consolidated Statements of Cash Flows
(Unaudited)
(in thousands of US dollars)

	Note	Three Months Ended **March 31, 2022**	March 31, 2021
OPERATING ACTIVITIES			
Net loss and comprehensive loss		**$ (9,221)**	$ (14,794)
Items not involving current cash flows:			
Depreciation and amortization		**156**	97
Interest expense on lease liabilities		**18**	14
Share-based compensation expense	8(c)	**593**	769
(Gain) loss on change in fair value of warrants	4	**(2,909)**	3,010
Accrued interest on Note payable		**-**	37
Warrant liability-foreign exchange adjustment		**-**	44
Changes in non-cash working capital balances			
Receivables		**8,280**	-
Prepaid expenses and deposits		**1,233**	(981)
Accounts payable and accrued liabilities		**(75)**	(1,506)
Cash used in operating activities		**(1,925)**	(13,310)
FINANCING ACTIVITIES			
Exercise of Derivative warrants		**-**	8,000
January 2021 Equity Offering, net of issuance costs		**-**	10,231
February 2021 Equity Offering, net of issuance costs		**-**	21,093
Exercise of Equity warrants		**-**	1,985
Exercise of stock options		**-**	14
Note payable		**-**	122
Repayment of lease obligations		**(101)**	(44)
Cash (used in) provided by financing activities		**(101)**	41,401
INVESTING ACTIVITIES			
Purchase of property, plant and equipment		**(106)**	(93)
Purchase of patents		**(62)**	(97)
Cash used in investing activities		**(168)**	(190)
(Decrease) increase in cash during the period		**(2,194)**	27,901
Cash and cash equivalents, beginning of the period		**32,306**	25,469
Cash and cash equivalents, end of the period		**$ 30,112**	$ 53,370

See accompanying notes to these condensed interim consolidated financial statements.

TITAN MEDICAL INC.
Condensed Interim Consolidated Statements of Shareholders' Equity
(Unaudited)
(in thousands of US dollars)

	Notes	Share Capital 000s	Share Capital $	Contributed Surplus – Warrant Reserve $	Contributed Surplus $	Deficit $	Total $
Balance, December 31, 2020		83,185	214,148	1,671	9,401	(239,029)	(13,809)
Derivative warrants exercised		8,000	8,000	-	-	-	8,000
Derivative warrants exercised – fair value adjustment		-	15,722	-	-	-	15,722
January 2021 equity offering, net of issuance costs		7,419	7,211	3,164	-	-	10,375
January 2021 equity offering, broker warrants		-	(1,384)	1,384	-	-	-
February 2021 equity offering, net of issuance costs		9,585	15,165	5,928	-	-	21,093
February 2021 equity offering, broker warrants		-	(1,238)	1,238	-	-	-
Equity warrants exercised		1,319	2,979	(994)	-	-	1,985
Equity warrants expired		-	-	(642)	642	-	-
Stock options exercised		20	27	-	(12)	-	15
Stock-based compensation expense		-	-	-	769	-	769
Net loss and comprehensive loss		-	-	-	-	(14,794)	(14,794)
Balance, March 31, 2021		**109,528**	**260,630**	**11,749**	**10,800**	**(253,823)**	**29,356**
Balance, December 31, 2021		111,203	263,364	11,749	14,067	(253,887)	35,293
Stock-based compensation expense		-	-	-	593	-	593
Net loss and comprehensive loss		-	-	-	-	(9,221)	(9,221)
Balance, March 31, 2022		**111,203**	**263,364**	**11,749**	**14,660**	**(263,108)**	**26,665**

See accompanying notes to these condensed interim consolidated financial statements.

1. NATURE OF BUSINESS

Titan Medical Inc. ("Titan" or the "Company") is a medical technology company focused on enhancing robotic assisted surgery using innovative technologies. The Enos™ robotic single access surgical system (the "Enos System") is being developed with an ergonomic focus to provide a surgical experience that imitates real-life movements that surgeons demand and includes multi-articulating instruments designed to allow surgeons an increased range of motion in a confined space, with dexterity and the ability to exert the forces necessary to complete common surgical tasks. With the Enos system, Titan intends to initially pursue gynecologic surgical indications. By focusing on a single access point, the Company believes that patient trauma, post-operative pain and scarring can be reduced, and patients may be able to recover from surgery faster.

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 76 Berkeley Street, Toronto, Ontario, Canada M5A 2W7. On May 29, 2020, the Company established Titan Medical USA Inc. ("Titan USA" or the "Subsidiary"), a Delaware corporation and a wholly owned subsidiary of the Company.

2. BASIS OF PRESENTATION

Statement of compliance

These Condensed Interim Consolidated Financial Statements have been prepared in compliance with International Accounting Standard 34*Interim Financial Reporting*. The notes presented in these Condensed Interim Consolidated Financial Statements include only significant events and transactions occurring since our last fiscal year end and are not fully inclusive of all matters required to be disclosed in the Company's annual audited Consolidated Financial Statements. Accordingly, these Condensed Interim Consolidated Financial Statements should be read in conjunction with our most recent annual audited Consolidated Financial Statements, for the year ended December 31, 2021. We have consistently applied the same accounting policies for all periods presented in these Condensed Interim Consolidated Financial Statements as those used in our audited Consolidated Financial Statements for the year ended December 31, 2021.

These Condensed Interim Consolidated Financial Statements were authorized for issue by the Board of Directors on May 11, 2022.

Basis of measurement

These Condensed Interim Consolidated Financial Statements have been prepared under the historical cost convention, except for the revaluation of certain financial liabilities to fair value. Items included in the financial statements of each consolidated entity in the Company are measured using the currency of the primary economic environment in which the entity operates (the functional currency). These interim Consolidated Financial Statements are presented in US dollars, which is the Company's functional currency.

Basis of consolidation

These Condensed Interim Consolidated Financial Statements include the accounts of the Company and its wholly owned subsidiaries. All intercompany transactions and balances have been eliminated in these consolidated financial statements.

Estimates, assumptions, and judgments

The preparation of these consolidated financial statements in conformity with IFRS requires management to make judgments, estimates and assumptions that affect the reported amounts of revenues, expenses, assets, liabilities and the disclosure of contingent assets and liabilities at the reporting date. Uncertainty about these assumptions and estimates could result in adjustments to the carrying amount of an asset or liability or the reported amount of revenue and expense in future periods. Estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognized in the period in which the estimates are revised and in any future periods affected.

2. BASIS OF PRESENTATION (continued)

Key areas of judgment and estimation are as follows:

Leases

The Company cannot readily determine the interest rate implicit in the lease, therefore, it uses its incremental borrowing rate ("IBR") to measure lease liabilities. The IBR is the rate of interest that the Company would have to pay to borrow over a similar term, and with a similar security, the funds necessary to obtain an asset of a similar value to the right-of-use ("ROU") asset. The IBR, therefore, requires estimation when no observable rates are available. The Company estimates the IBR using observable inputs such as market interest rates and is required to make certain entity-specific estimates such as the stand-alone credit rating.

Stock-based payments and warrants

The Company uses the Black-Scholes option pricing model to estimate the fair value of stock-based compensation and warrant reserves, which require the use of several input variables. Measurement date estimates include share price, expected volatility (based on weighted average historical volatility adjusted for changes expected due to publicly available information of a comparable peer group), weighted average expected life of the instruments, expected dividends and the risk-free interest rate (based on government bonds). The inputs to the model are subject to estimate and changes in these inputs can materially impact the estimated fair value of stock-based payments and warrants.

Asset impairments for non-financial assets and impairment reversals

The Company's estimate of the recoverable amount for the purpose of impairment testing requires management to make assumptions regarding estimates of the present value of future cash flows including growth opportunities, economic risk, and the discount rate.

(in thousands of US dollars, except share and per share amounts, unless otherwise stated)

3. RIGHT-OF-USE ASSETS AND LEASE LIABILITIES

The Company leases its facility in Chapel Hill, North Carolina. This lease has remaining lease terms of approximately3.2 years. The Company leased a facility in Toronto, Ontario for its corporate office. The lease expired in November 2021. The Company does not have leases with residual value guarantees, or leases not yet commenced to which the Company is committed. Lease liabilities have been measured by discounting future lease payments using the Company's incremental borrowing rate of 6.0% as rates implicit in the leases were not readily determinable.

The following table summarizes the Company's right-of-use assets outstanding at March 31:

	2022
	$
Balance, January 1	**1,177**
Additions	**-**
Amortization expense	**(86)**
Balance, March 31	**1,091**

The following table summarizes the Company's right-of-use liabilities outstanding at March 31:

	2022
	$
Balance, January 1	**1,327**
Interest expense	**18**
Repayments	**(101)**
Balance, March 31	**1,244**

(in thousands of US dollars, except share and per share amounts, unless otherwise stated)

4. WARRANT DERIVATIVE LIABILITY

The warrant derivative liability arises from Company's common share purchase warrants in connection with historical equity offerings. These warrants are priced in non-functional currency which resulted in having exercise prices that are not fixed and include features that have a cashless exercise option or a ratchet down provision. Under IFRS 9 *Financial Instruments and IAS 32 Financial Instruments*: Presentation, warrants with an exercise price denominated in a currency that differs from the Company's functional currency are treated as a derivative measured at fair value with subsequent changes in fair value accounted for through Net Loss and Comprehensive Loss. There is no cash flow impact as a result of the accounting treatment for changes in the fair value of the warrant derivative or when warrants expired unexercised.

	Number of Warrants Outstanding	Fair Value of Warrant Derivative
As at December 31, 2021	18,955,281	4,930
Items that were classified to net loss:		
Change in fair value	-	(2,909)
As at March 31, 2022	**18,955,281**	**2,021**

As at March 31, 2022, the following derivative warrants were outstanding:

Issue Date	Expiry Date	Exercise Price	Currency	Number Issued	Number Outstanding
		$			
29-Jun-17	29-Jun-22	6.00	CAD	1,612,955	75,810
21-Jul-17	29-Jun-22	6.00	CAD	370,567	370,567
24-Aug-17	24-Aug-22	6.00	CAD	563,067	563,067
5-Dec-17	5-Dec-22	18.00	CAD	1,533,333	1,533,333
10-Apr-18	10-Apr-23	10.50	CAD	1,126,665	1,126,665
10-May-18	10-Apr-23	10.50	CAD	168,889	168,889
10-Aug-18	10-Aug-23	2.92	USD	7,679,574	6,661,068
21-Mar-19	21-Mar-24	3.95	USD	8,455,882	8,445,882
Balance at March 31, 2022				**21,510,932**	**18,955,281**

5. SHARE CAPITAL

Authorized: Unlimited number of no par value common shares. 111,202,690 common shares issued and outstanding as of March 31, 2022 (111,202,690 as of December 31, 2021)

(in thousands of US dollars, except share and per share amounts, unless otherwise stated)

6. CONTRIBUTED SURPLUS-WARRANT RESERVE

The Company issued warrants pursuant to the equity offerings in 2020 and 2021. Each warrant entitled the holder to purchase one common share at a fixed price, these warrants were classified as equity under IAS 32. These equity warrants expire between February 24, 2023 and January 26, 2026 and are not revalued at each reporting period.

As at March 31, 2022, the following equity warrants were outstanding:

Issue Date	Expiry Date	Exercise Price	Currency	Number Issued	Number Outstanding
		$			
27-Mar-20	27-Mar-25	0.21	USD	154,350	93,100
06-May-20	06-Nov-25	0.45	USD	125,455	73,343
10-Jun-20	10-Jun-24	1.25	USD	1,260,000	643,387
26-Jan-21	26-Jan-26	1.94	USD	518,234	515,834
26-Jan-21	26-Jan-26	2.00	USD	3,709,677	3,123,377
24-Feb-21	24-Feb-23	3.00	USD	4,792,625	4,792,625
24-Feb-21	24-Feb-23	3.00	USD	670,967	670,967
Balance at March 31, 2022				**11,231,308**	**9,912,633**

7. DEPRECIATION AND AMORTIZATION

	Three Months Ended	
	March 31, 2022	March 31, 2021
	$	$
Depreciation of ROU assets	**86**	54
Depreciation of PPE	**54**	31
R&D - Depreciation	**140**	85
G&A - Amortization of patent rights	**16**	12
Depreciation and Amortization	**156**	97

8. SHARE-BASED COMPENSATION

The Company's share-based compensation plans includes stock options and Restricted Share Units ("RSU"). The Company has reserved up to 15% of the issued and outstanding Common Shares for the granting of stock options and RSUs to eligible Employees, Officers, Directors and external consultants.

Common shares outstanding, March 31, 2022	111,202,690	
Share-based compensation available for issuance: 15%		16,680,404
Stock options outstanding, March 31, 2022		(4,830,628)
RSU outstanding, March 31, 2022		(1,730,605)
Share-based compensation available for future grants		**10,119,171**

(in thousands of US dollars, except share and per share amounts, unless otherwise stated)

8. SHARE-BASED COMPENSATION (continued)

(a) Stock Options

The Company granted stock options to acquire common stock through our stock option plan of which the following are outstanding as March 31:

	2022		2021	
	Stock Options	**Weighted Average Exercise Price**	**Stock Options**	**Weighted Average Exercise Price**
Balance, January 1	$ 5,257,089	$ 1.73	$ 2,923,770	$ 1.76
Granted	-	-	1,801,262	2.21
Forfeited	(426,461)	2.38	(10,663)	2.76
Expired	-	-	(9,810)	3.61
Exercised	-	-	(19,568)	0.73
Balance, March 31	$ 4,830,628	$ 1.73	$ 4,685,021	$ 1.93

(b) Restricted Share Units

The Company granted RSUs to Officers and Directors through our incentive share award plan. Grants of RSUs to Directors vest either immediately or on the date of the next Annual General Meeting. Grants of RSUs to Officers vest over a four-year period. The following RSUs are outstanding at March 31:

	2022	**2021**
Balance at Jan 1	1,581,607	-
Granted	148,998	1,527,860
Released	-	-
Cancelled	-	-
Balance, March 31	**1,730,605**	**1,527,860**

(c) Stock-Based Compensation

The following table shows the stock-based compensation expense.

	Three Months Ended	
	March 31, 2022	March 31, 2021
	$	$
Stock options	**212**	316
RSUs	**209**	342
G&A - Stock options & RSUs	**421**	658
R&D - Stock options	**172**	111
Share-based compensation expense	**593**	769

(in thousands of US dollars, except share and per share amounts, unless otherwise stated)

9. LOSS PER SHARE

Basic loss per share is calculated by dividing net loss by the weighted average number of common shares outstanding during the year.

Diluted loss per share is calculated by adjusting the weighted average number of common shares outstanding to assume conversion of all potential dilutive stock options to common shares.

	Three Months ended March 31,	
	2022	2021
Numerator:		
Net loss	**$ (9,221)**	$ (14,794)
Denominator:		
Weighted average number of common shares outstanding for basic EPS	**111,202,690**	97,517,298
Adjustment for stock options	**-**	-
Weighted average number of common shares outstanding for diluted EPS	**111,202,690**	97,517,298
Basic and diluted loss per share	**$ (0.08)**	$ (0.15)

10. FINANCIAL RISK MANAGEMENT

Credit Risk

Credit risk is the risk of financial loss to the Company if a licensee or counter party to a financial instrument fails to meet its contractual obligations. Financial instruments that potentially subject the Company to concentrations of credit risk consist primarily of cash and accounts receivable.

The Company's cash consists primarily of deposit investments that are held primarily with Canadian chartered banks.

The Company's only customer is a large multinational company which do not have a history of non-payment. Credit risk from accounts receivable encompasses the default risk of the Company's customers.

Liquidity Risk

Liquidity risk is the risk that the Company will not be able to meet its financial obligations as they fall due. The Company's objective in managing liquidity risk is to ensure that it has sufficient liquidity available to meet its liabilities when due. The Company manages this risk by managing its capital structure through continuous monitoring of its actual and projected cash flows. At March 31, 2022, the Company had cash of $30.1 million.

Interest Rate Risk

The financial instruments that expose the Company to interest rate risk are its cash. The Company's objectives of managing its cash is to ensure sufficient funds are maintained on hand at all times to meet day-to-day requirements and to place any amounts that are considered in excess of day-to-day requirements on short-term deposit with the Company's banks so that they earn interest. When placing amounts of cash into short-term investments, the Company only places investments with Canadian chartered banks or insurance companies and ensures that access to the amounts placed can be obtained on short notice. A one percent increase/decrease in interest rates would not have resulted in a material increase/decrease in interest income/expense during the quarter ended March 31, 2022.

10. FINANCIAL RISK MANAGEMENT (continued)

Currency Risk

The Company's operating results are subject to changes in the exchange rate of the foreign currencies (primarily Canadian dollar) relative to the US dollar. Any decrease in the value of the Canadian dollar relative to the US dollar has a favourable impact on Canadian dollar denominated operating expenses. A nominal amount of the Company's cash and short-term investments are denominated in Canadian dollars and are subject to changes in the exchange rate of the Canadian dollar relative to the US dollar.

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, quarantine periods and social distancing protocol, along with the uncertainty around the disease itself, have caused material disruption to businesses 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.

Russia – Ukraine Conflict

The Russian invasion of Ukraine and the responses by governments around the world raises the prospects of increased cybersecurity attacks, strains on global supply chains, increases in energy prices, chip shortages since Russia and Ukraine are critical suppliers of neon gas and palladium used in chip production and challenges in natural resource extraction, refinement and transportation, among other possible impacts. The conflict may have a direct or indirect material adverse impact on the Company's business, financial condition, results of operations, or cash flows.

11. CAPITAL MANAGEMENT

The Company's objective when managing capital is to maintain a strong statement of financial position. We achieve our objective by obtaining adequate cash resources to support planned activities which include manufacturing the Enos System, filing an IDE with the FDA, clinical studies, filing the De Novo application, administrative costs, and intellectual property expansion and protection. The Company defines its capital as cash and shareholders' equity, which as at March 31, 2022 totaled $56.8 million [December 31, 2021 - $67.6 million].

The Company does not have any debt other than accounts payable and accrued liabilities and lease liabilities. The Company does have commitments related to the Enos System.

In managing its capital, the Company estimates future cash requirements by preparing an annual budget for review and approval by its Board. The budget establishes the approved activities for the upcoming year and estimates the costs associated with these activities.

Historically, the Company has funded its operations through the issuance of additional common shares and common share purchase warrants that upon exercise are converted to common shares and through license revenue received under licensing agreements. While management regularly monitors the capital markets, general market conditions, and the availability of capital, there are no assurances that funds will be made available to the Company in the required amounts or when required. The Company has the ability to sell approximately 2.7 million shares under the terms of the Aspire Agreement, which will expire in June 2022.

On July 30, 2019, the Company filed a Form F-3 registration statement (the "Base Shelf") that qualifies for distribution of up to $125,000,000 of common shares, warrants, or units (the "Securities") in either Canada, the U.S. or both.

Under the Base Shelf, the Company may sell Securities to or through underwriters, dealers, and also may sell Securities directly to purchasers or through agents, subject to obtaining any applicable exemption from registration requirements. The distribution of Securities may be effected from time to time in one or more transactions at a fixed price or prices, which may be subject to change, at market prices prevailing at the time of sale, or at prices related to such prevailing market prices to be negotiated with purchasers and as set forth in an accompanying Prospectus Supplement.

The Base Shelf provides the Company with additional flexibility when managing its cash resources as, under certain circumstances, it can shorten the time period required to close a financing and is expected to increase the number of potential investors that may be prepared to invest in the Company. Funds received as a result of using the Base Shelf would be used in line with the Board approved budget. The Base Shelf is effective until July 30, 2022.

12. COMMITMENTS

As of March 31, 2022, the Company is committed to payments totaling $8.1million (December 31, 2021 - $9.3 million) for activities related to the development of the Enos system.

The Company has entered into an agreement with a consultant under which the Company has certain contractual obligations to grant up to100,000 restricted Common Shares based on the consultant's achievement of multiple pre-determined performance criteria. To-date, the performance criteria have not been achieved and no restricted Common Shares have been granted to the consultant. The agreement will expire on May 13, 2022.

13. SUBSEQUENT EVENTS

Subsequent to the quarter, the Company received a purchase order from Medtronic plc ("Medtronic") for $2.6 million to cover the purchase of instruments and cameras that will be used in pre-clinical activities by Medtronic. Medtronic will be evaluating the Company as a potential manufacturing and supply partner for Medtronic's own RAS technology. The Company anticipates that will deliver on this purchase order during 2022.

TITAN MEDICAL INC.

Management's Discussion and Analysis for the three months ended March 31, 2022

May 11, 2022

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INTRODUCTION

The following Management's Discussion and Analysis ("**MD&A**") is prepared as of May 11, 2022 and should be read in conjunction with the unaudited condensed interim consolidated statements of financial position and the related notes thereto for the three months ended March 31, 2022 (the "**Interim Financial Statements**") of Titan Medical Inc. (referred to hereinafter as " **Titan**", the "**Company**", "**we**", "**us**" and "**our**") and the annual audited financial statements for the year ended December 31, 2021. The Interim Financial Statements have been prepared in accordance with International Financial Reporting

Standards ("**IFRS**") 34, Interim Financial Reporting (" **IAS 34**") as issued by the International Accounting Standards Board.

Unless otherwise indicated, all financial information in this MD&A is reported in thousands of US dollars except for share and earnings (loss) per share data which is reported in number of shares and US dollars respectively. The tables and charts included in this document form an integral part of this MD&A.

The common shares of the Company (the " **Common Shares**") are listed under the symbol "**TMDI**" on The Nasdaq Capital Market (the "**Nasdaq**") and "**TMD**" on the Toronto Stock Exchange (the "**TSX**").

This MD&A has been prepared with reference to National Instrument 51-102 – Continuous Disclosure Obligations. Additional information related to Titan, including our Annual Report ("**Annual Report**") on Form 20-F for the year ended December 31, 2021, is available via our website at www.titanmedicalinc.com, on SEDAR at www.sedar.com, and on the EDGAR section of the SEC's website at www.sec.gov.

This MD&A includes references to the Company's trade-marks and trade names, such as Titan, Titan Medical, and Enos, some of which may be protected under applicable intellectual property laws of one or more countries and which the Company believes is its property. Solely for convenience, the Company's trade-marks referred to in this MD&A may appear without the ™ or Ò symbols, but such references are not intended to indicate, in any way, that the Company will not assert, to the fullest extent under applicable law, its rights to these trade-marks and trade names.

CAUTIONARY NOTE REGARDING 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, although these words may not be present in all forward-looking statements. Forward-looking statements involve known and unknown risks, uncertainties, assumptions and other factors that may cause the actual results, performance or achievements of the Company to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements. Such factors include, but are not limited to, the factors discussed in the section entitled "*Risk Factors*" in the Annual Report. Although the Company has attempted to identify important factors that could cause actual actions, events or results to differ materially from those described in forward-looking statements, there may be other factors that cause actions, events or results to differ from those anticipated, estimated or intended. Forward-looking statements contained herein are made as of the date of this MD&A and, other than as required by law, the Company disclaims any obligation to update any forward-looking statements, whether as a result of new information, future events or results or otherwise. There can be no assurance that forward-looking statements will prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements. Forward-looking statements are based on a number of assumptions, which may prove to be incorrect, including but not limited to the assumptions discussed in the section entitled "Cautionary Note Regarding Forward Looking Statements" in the Company's Annual Report. Accordingly, readers should not place undue reliance on forward-looking statements.

This MD&A also includes market data and forecasts. Although the Company is responsible for all of the disclosure contained in this MD&A, in some cases the Company relies on and refers to market data and certain industry forecasts that were obtained from third party surveys, market research, consultant surveys, publicly available information and industry publications and surveys that it believes to be reliable. Unless otherwise indicated, all market and industry data and other statistical information and forecasts contained in this MD&A are based on independent industry publications, reports by market research firms or other published independent sources and other externally obtained data that the Company believes to be reliable. Any such market data, information or forecast may prove to be inaccurate because of the method by which it was obtained or because it cannot always be verified with complete certainty given the limits on the availability and reliability of raw data, the voluntary nature of the data gathering process and other limitations and uncertainties, including those discussed in the Annual Report under the heading "*Risk Factors*". As a result, although the Company believes that these sources are reliable, it has not independently verified the information.

The sections of the Annual Report titled " *Cautionary Note Regarding Forward-Looking Statements*" and "*Risk Factors*" are expressly incorporated by reference into this MD&A. The Annual Report is available on the EDGAR section of the SEC's website at www.sec.gov and on SEDAR at www.sedar.com.

OVERVIEW

Titan is a medical technology company headquartered in Toronto, Ontario with operations in Chapel Hill, North Carolina. Titan is focused on enhancing robotic assisted surgery ("**RAS**") using innovative technology through a single access point. The Enos™ system, a single access robotic-assisted surgical platform (the "**Enos System**") is being developed with an ergonomic focus to provide a surgical experience that imitates real-life movements that surgeons demand. The platform consists of a surgeon workstation that interfaces with a patient cart that includes multi-articulating instruments designed to allow surgeons an increased range of motion in a confined space, with dexterity and the ability to exert the forces necessary to complete common surgical tasks. With the Enos System, Titan intends to initially pursue gynecologic surgical indications. By focusing on a single access point, the Company believes that patient trauma, post-operative pain and scarring can be reduced, and patients may be able to recover from surgery faster.

The Company's innovations in RAS, including those directed at the Enos System, are protected by a growing patent portfolio that includes more than 200 patents and patent applications. Certain of Titan's RAS technologies and related intellectual property have been licensed to Medtronic plc ("**Medtronic**"), while retaining world-wide rights to commercialize the technologies for use with the Enos System.

The Enos System is under development and has not been authorized for marketing by the U.S. Food and Drug Administration (" **FDA**") or approved by any other regulatory authority in any other jurisdiction and until such authorizations or approvals are obtained, is not yet commercially available.

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 76 Berkeley Street, Toronto, Ontario, Canada M5A 2W7. On May 29, 2020, the Company established Titan Medical USA Inc. ("**Titan USA**" or the "**Subsidiary**"), a Delaware corporation and a wholly owned subsidiary of the Company. Titan USA's principal activity consists of R&D as well as the manufacturing of instruments and camera systems for the Enos System from its leased premises located in Chapel Hill, North Carolina.

In addition to leveraging in-house R&D capabilities, including for activities related to the Enos System and the development work performed pursuant to the agreement with Medtronic (see "*Significant Transactions - Development Agreement & License Agreement with Medtronic* "), the Company engages subcontractors and consultants to perform certain design and development, prototyping, and assembly and manufacturing activities.

SIGNIFICANT TRANSACTIONS

Medtronic Order

Subsequent to the quarter, the Company received a purchase order (" **Order**") from Medtronic for $2.6 million to cover the purchase of instruments and cameras that will be used in pre-clinical activities by Medtronic. Medtronic will be evaluating the Company as a potential manufacturing and supply partner. The Company anticipates that it will deliver on the Order during 2022.

February 2021 Equity Offering

On February 24, 2021, the Company closed an offering of 9,585,250 units of the Company (" **February 2021 Units**") sold on a "bought deal" basis, at a price of $2.40 per February 2021 Unit for aggregate gross proceeds of $23 million. 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 is exercisable to acquire one Common Share at an exercise price of $3.00 per Common Share until February 24, 2023. In connection with the February 2021 offering, the Company issued 670,967 broker warrants, each exercisable at $3.00 until February 24, 2023 for one Common Share.

Anticipated use of proceeds from the offering is for general corporate purposes and funding working capital and capital expenditures. As previously disclosed, general corporate purposes includes the development of the Enos System (see "*Enos Single Access Robotic Assisted Surgical System - Development Plan* ") and there have been no variations in the proposed use of proceeds to date.

January 2021 Equity Offering

On January 26, 2021, the Company closed an offering of 7,419,354 units of the Company (" **January 2021 Units**") sold on a "bought deal" basis, at a price of $1.55 per January 2021 Unit for aggregate gross proceeds of $11.5 million. 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. In connection with the January 2021 offering, the Company issued 518,234 broker warrants, each exercisable at $1.9375 until January 26, 2023 for one Common Share.

Anticipated use of proceeds from the offering is for general corporate purposes and funding working capital and capital expenditures. As previously disclosed, general corporate purposes includes the development of the Enos System (see "*Enos Single Access Robotic Assisted Surgical System - Development Plan* ") and there have been no variations in the proposed use of proceeds to date.

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 RAS technologies and a separate license agreement (the "**License Agreement**", and together with the Development Agreement, the "**Medtronic Agreements**") with Medtronic with respect to certain previously developed Company technologies.

Under the terms of the License Agreement, Titan granted Medtronic an exclusive license with regard to certain RAS technologies, including patents and know-how, for a one-time upfront royalty payment of $10 million received on June 10, 2020 with no further royalty payments due thereunder. Under the terms of the Development Agreement, Titan granted Medtronic an exclusive license with regard to the technologies developed under the Development Agreement in exchange for license fees totaling up to $31 million (the exact amount dependent on certain legal, transaction and intellectual property costs under the Medtronic Agreements). The total payments received under the Development Agreement were $30.6 million as described below, with no further royalty payments due thereunder. While the intellectual property licensed

to Medtronic under the Medtronic Agreements may not be licensed to a third party, Titan has retained rights to continue to develop, commercialize and use the licensed intellectual property and the licensed technologies for the Company's own business in single access RAS, including the Enos System. Furthermore, in connection with the sale of all or substantially all of the assets of the Company or a "change of control" (as such term is defined in the Medtronic Agreements), the Company may assign and transfer all of its rights under the Medtronic Agreements, allowing an acquirer to use the licensed intellectual property and technologies, as otherwise permitted under the Medtronic Agreements, for their own purposes.

All of the milestones under the Development Agreement have been completed and the associated payments were received from Medtronic. The milestones and associated payments were as follows:

Medtronic Milestone[1]	Deadline[2]	Payment (US $ 000's)	Milestone Achieved
Medtronic Milestone 1	Four (4) months from Development Start Date [3]	10,000	Q4 2020[5]
Medtronic Milestone 2[4]	Four (4) months from Development Start Date	-	-
Medtronic Milestone 3	Six (6) months from the later of: (a) receipt of Payment for Medtronic Milestone 1, (b) receipt from Medtronic of Medtronic deliverables required for Medtronic Milestone 3, and (c) receipt from Medtronic of confirmation of certain due diligence in respect of deliverables for Medtronic Milestone 1	10,000	Q2 2021[6]

Medtronic Milestone 4	Four (4) months from the later of: (a) receipt of Payment for Medtronic Milestone 3, (b) receipt of Medtronic deliverables for Medtronic Milestone 4, and (c) receipt from Medtronic of confirmation of certain due diligence in respect of deliverables for Medtronic Milestone 3	10,600	Q4 2021[7]

Notes:
1. Medtronic Milestone 1, Medtronic Milestone 3 and Medtronic Milestone 4 are each technology milestones as defined in the Development Agreement and consist of the completion of the development of certain RAS technologies as described in the Development Agreement.
2. All as further described and qualified in the Development Agreement.
3. "Development Start Date" has the meaning ascribed to it in the Development Agreement and was June 12, 2020.

4. Medtronic Milestone 2 was a non-technology milestone defined in the Development Agreement having Titan raise at least $18.0 million 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 in June 2020.
5. On October 28, 2020, the Company received a $10 million license payment for completion of Medtronic Milestone 1.
6. On May 28, 2021, the Company received a $10 million license payment for completion of Medtronic Milestone 3.
7. On January 26, 2022, the Company received a $10 million license payment for completion of Medtronic Milestone 4 and a $0.6 million payment related to certain legal, transaction and intellectual property costs for a total of $10.6 million. The Company received a net payment of $8.3 million, as $2.3 million was offset by Medtronic to pay for the loan that was retired in December 2021.

Aspire Common Share Purchase Agreement

On December 23, 2019, the Company entered into an agreement (the " **Aspire Agreement**") with Aspire Capital Fund, LLC (" **Aspire**"). Under the terms of the Aspire Agreement, Aspire committed to purchase up to $35 million of Common Shares for a maximum of 9,729,777 Common Shares. To date, the Company has issued 6,981,048 Common Shares of Titan for total proceeds of $5.2 million ($2.7 million for the year ended December 31, 2021 and $2.1 million for the year ended December 31, 2020). The balance remaining on Aspire's commitment is 2,748,729 Common Shares (with a maximum value of $29.8 million), accessible at the Company's request from time to time, until June 23, 2022, subject to the terms and conditions of the Aspire Agreement.

ENOS SINGLE ACCESS ROBOTIC ASSISTED SURGICAL SYSTEM

Development

The Company's business is focused on the development and commercialization of innovative surgical technologies for single access RAS requiring only a single port. The Company is presently focused on the development of the Enos System, which comprises a surgeon-controlled patient cart with a 3D high-definition vision system and multi-articulating instruments for performing surgical 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 surgical 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 various stakeholders including surgeons and operating room staff experienced in RAS, specialized medical technology development firms and from the Company's surgeon advisory board. This approach has positioned the Company to design a robotic surgical system intended to include the traditional advantages of RAS, 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 surgical site for optimal surgical positioning of the patient cart. 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 surgeon workstation. The reusable multi-articulating instruments provide for highly dexterous movement in use and are designed to facilitate an assortment of permanent and detachable single patient use end effectors. The use of reusable robotic instruments for a specific number of uses 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 for surgical positioning 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 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 has worked to deepen its intellectual capital through the recruitment of an in-house technical team and continuously evaluates its technologies under development for intellectual property protection through a combination of trade secrets and patent application filings. The Company continues to focus on the filing and prosecution of patents that management believes validate the novelty of its unique technology.

Regulatory Overview

RAS systems are highly regulated, complex medical devices. The Company has used a combination of internal and external resources 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 US, followed by 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 US, the regulatory clearance process includes a Q-Submission 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 Investigational Device Exemption ("**IDE**") applications, 510(k) applications and De Novo classification requests. Certain Q-Submissions, termed Pre-Submissions, typically include a request for written feedback, and if desired, 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 marketing authorization, nor does it preclude any identified future changes in regulatory pathways.

The Company has filed a number of Q-Submissions and based on ongoing communications with the FDA, expects that the Enos System will be classified as a Class II device and accordingly plans to obtain marketing authorization through a classification request for novel devices in accordance with section 513(f)(2) of the U.S. Federal Food, Drug and Cosmetic Act (the "**FD&C Act**"), commonly known as a De Novo classification submission. In 2020, the Company filed a Request for Information in response to communications the Company had with the FDA, in which the FDA raised the question of whether RAS devices would generally continue to be eligible for classification as Class II devices and the 510(k) submission pathway, or whether a De Novo submission would be more appropriate for such devices. While the Company had previously confirmed with the FDA that the Enos System would be suitable for marketing authorization through a 510(k) submission, in December 2020, it received 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 indicated that the FDA believes, based on information provided to it, that the Enos System is appropriate for classification through the De Novo submission pathway. The FDA stated that the technological differences between the Enos System and RAS devices previously cleared for marketing by the FDA raise new questions of safety and effectiveness, and that a 510(k) application submitted by the Company claiming substantial equivalence to any previously marketed RAS device would most likely be determined to be not substantially equivalent. In view of the Written Response and additional guidance provided by the FDA to the Company, the Company plans to proceed with a De Novo classification request for the Enos System following successful completion of the IDE clinical study as described below.

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 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 review days) is made to either grant or decline the request. Review days are calculated as the number of calendar days between the date the De Novo request was received by the FDA and the date of the FDA's decision, excluding the days a request was on hold for an additional information 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 applications for marketing authorization, 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 marketing authorization is not quantifiable at this time. The FDA's recent review and response to the Company's proposed IDE clinical study general design and planning occurred during a video conference call held in September 2021. While the general design of the Company's planned IDE clinical study was confirmed, more detailed communication will be required to reach agreement on the content of a complete IDE application, including the final clinical design, risk analyses, safety testing, human factors testing, and preclinical data. Accordingly, the Company plans on further communications and submissions with the FDA to clarify the requirements for the IDE application and to understand any special controls which the FDA may apply to the IDE clinical study. Additional Pre-Submissions will 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 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. An IDE allows the investigational device to be used in a clinical study in order to collect safety and effectiveness data. Further, the recruitment of surgeons from multiple hospital sites will be necessary to perform the surgeries as well as the recruitment of patients willing to participate in the IDE study. 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 De Novo classification for marketing authorization.

Previous results achieved by surgeons in operating prototypes in numerous 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 Practices ("**GLP**") and subsequently, on July 18, 2019, announced the successful completion

of those studies. Following the completion of the GLP procedures, the Company proceeded to perform human factors evaluation (" **HFE**") studies, which included verification of production system operation with clinical experts under simulated robotic manipulation exercises. However, during the GLP and HFE studies, the Company identified opportunities to improve the performance of instruments, camera systems and sterile interfaces before proceeding further, which may require repeating those studies with enhanced designs.

During the third quarter of 2021, the Company completed additional pre-clinical GLP studies. The pre-clinical studies involved utilizing the Enos System to perform hysterectomies in porcine subjects. The subjects successfully completed the survival period in the study. With the completion of these studies, surgeons have now performed over 70 pre-clinical procedures representing multiple subspecialties with Titan's Enos System.

During the third quarter of 2019, the Company's European Notified Body also completed audits of the Company's quality system procedures and related

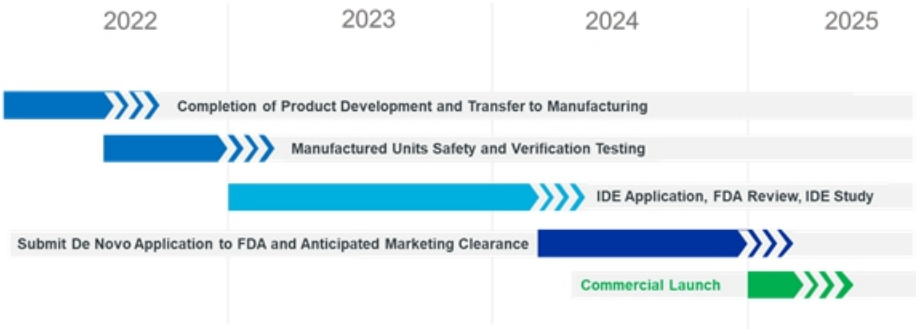
documentation for ISO 13485 Certification, which was ultimately received in January 2020. In September 2021, a surveillance audit of the Company's quality system was successfully completed by the Company's Notified Body.

During the first quarter of 2022, the Company completed an animal lab procedure. Additional surgeon validation was gained during this animal lab where Titan received feedback on improvements to the vision system and to electricalsurgical instruments. New insights on the ease of robotic surgery adoption for laparoscopic surgeons was also noted, which the Company expects toinstitute as part of its training programs.

Development Plan

For the purposes of this section, the description and milestone chart with respect to the Company's development plan should be read in conjunction with the "*Risk Factors*" section of the Annual Report.

The Company is focused on the development and commercialization of the Enos System. The following chart and narrative are provided to outline the significant development and regulatory milestones required to achieve the overall goal of commercializing the Enos System in the United States.



While the milestone chart is based on information currently available to the Company, there is no assurance that the development, regulatory and commercialization milestones set forth above will be completed within the timeframes forecasted, if at all, and are based upon the following key assumptions:

1. The Company will complete each milestone within the projected timeframe and at the estimated cost.

2. The Company will receive on a timely basis all applicable regulatory authorizations, approvals or clearances including without limitation the planned IDE application and the planned De Novo application to the FDA.
3. There will be no significant changes to the regulatory authorization process in the United States.
4. The Company will be able to secure a sufficient number of hospital sites, surgeons and patients as part of the IDE clinical study.
5. The costs of materials and components required by the Company, availability of sufficiently qualified personnel and the wages and salaries of such personnel and the costs and timing of engaging third parties in respect of the Company's clinical study and the manufacturing of its Enos System will remain stable.
6. Despite global supply chain challenges, the Company and the manufacturing firms it engages will be able to secure components and subsystems for the Enos System on a timely basis, and no unforeseen shortages or shipping delays will arise.
7. The Company will be able to raise required financing on a timely basis to support its development program, manufacturing, human clinical study and operations.
8. The design of the Enos System and related platforms and equipment will not be required to materially change for any reasons (including without limitation due to results of safety and verification testing, market demands, intellectual property or regulatory issues).
9. The Company will be able to engage, retain and recruit, as necessary, technical personnel, contractors and third parties (such as development firms and manufacturers) with the type of specialized skill and knowledge required to develop, manufacture and test the Enos System.

The foregoing list of assumptions is not exhaustive. Although the Company has attempted to identify on a reasonable basis the key assumptions related to forward-looking statements in the development milestone table above, there can be no assurance that the 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.

The Company plans to file the IDE application for the Enos System with the FDA in the first quarter of 2023 and anticipates receiving a response on the IDE application from the FDA in the first half of 2023. Associated milestones as set forth in the chart above are described in additional detail below.

- *Completion of Product Development and Transfer to Manufacturing* – The Company is presently working to complete product development to accommodate the transfer of the Enos System to manufacturing, including the areas of supply chain management, product assembly and testing, and implementation of software updates related to safety controls. Completion of product development is anticipated by mid-2022. The Company relies on its employees as well as engagements with consultants, development firms and manufacturers to complete product development. Any interruptions in the engagement of the forgoing or from other interruptions related thereto, such as supply chain interruptions, will impact the Company's ability to complete product development.

- *Manufactured Units Safety and Verification Testing* – Upon completion of product development and the delivery of manufactured units of the Enos patient cart and surgeon workstation, the Company anticipates completing system verification and validation and safety testing in support of the planned IDE submission to the FDA.

- *IDE Application, FDA Review, IDE Study* – Upon successful completion of safety and verification testing of the Enos patient cart and surgeon workstation as well as the biocompatibility testing of instruments, cameras and accessories, the Company expects it will have the requisite information necessary to submit a complete IDE application to the FDA in the first quarter of 2023. Upon receiving approval of the IDE application by the FDA, the Company plans to commence human clinical studies to validate the safety and effectiveness of the Enos System.

With the feedback from the FDA during the second half of 2021, it is anticipated that the IDE clinical study will include total laparoscopic hysterectomies performed on 30 to 40 patients at 3 to 4 clinical sites. The Company has already begun IRB site preparation for the selected clinical sites. Based on the expected timing of filing the IDE application and the FDA review and approval process, the Company anticipates that the surgical procedures associated

with the IDE, and the associated follow-up, can be completed in early 2024.

- *De Novo Application and FDA Review* – Assuming the successful completion of the IDE study, including follow-up data, the Company expects to submit its De Novo application to the FDA and receive the FDA's response in 2024.

- *Commercialization* – The Company anticipates a commercial launch of the Enos System in early 2025 upon receipt of marketing authorization from the FDA. Commercial manufacturing of the Enos System is expected to be an extremely detailed and complex process with the potential for delays, interruptions (including supply chain interruptions) or cost overruns.

The total costs to complete the development of the Enos System cannot yet be determined with a high degree of certainty, and the costs may be substantially higher than any estimated by the Company. Please see "*Special Note Regarding Forward-Looking Statements*" and "*Risk Factors*" in the Annual Report.

The Company anticipates that its cash balance of $30.1 million at March 31, 2022 and the ability to raise additional capital that is available under the Aspire Agreement will be sufficient to fund the development of the Enos System and operational expenses into the first quarter of 2023. However, unexpected increases in costs and expenses due to operational decisions made by the Company and/or factors beyond the Company's control, such as pandemics including COVID-19 or any variants and international conflicts including the Russian invasion of Ukraine, or any delays related to sourcing of parts and materials or higher than expected inflation rates impacting pricing of parts and materials could cause a material impact on working capital resources of the Company.

Due to the nature of technology development and the related medical device regulatory pathway in the United States, there is no assurance that the development, regulatory and commercialization milestones set forth above will be completed within the timeframes forecasted, if at all, and there can be no assurance with respect to the resources that may be required to achieve these milestones, including both internal resources with respect to the availability to the Company of qualified technical personnel and third party development and manufacturing firms. Furthermore, additional required development or regulatory tasks could be identified in the course of the development, manufacturing and testing of the Enos System which may elongate the forecast timeline. The review times for IDE applications as well as De Novo applications with the FDA can vary greatly, and there can be no assurance as to the time it will take for the Company to receive FDA marketing authorization for the Enos System, or whether such authorization will be obtained at all.

INTELLECTUAL PROPERTY AND LICENSING

As of March 31, 2022, the Company's patent portfolio includes over 200 patents and patent applications. 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 the License Agreement (see " *Significant Transactions - Development Agreement & License Agreement with Medtronic* "), the Company exclusively licensed to Medtronic a portion of its portfolio related to certain aspects of instruments and cameras, while retaining the world-wide rights to commercialize the licensed technologies for the Company's own business in single access RAS. Furthermore, pursuant to the Development Agreement with Medtronic, the Company developed certain RAS technologies, that were completed and exclusively licensed by Medtronic for license payments of $30.6 million. The Company

retains the world-wide rights to commercialize any developed technology in its own business (see " *Significant Transactions - Development Agreement & License Agreement with Medtronic*").

IP Exclusivity and Independence

Under each of the Medtronic Agreements, while Titan granted an exclusive license to Medtronic, Titan retained world-wide ownership rights to independently commercialize the licensed technologies in single access RAS, including with the Enos System and enhancements thereof. Under each of the Medtronic Agreements Titan may assign its intellectual property rights thereunder in connection with the sale of all or substantially all of the assets of Titan or in connection with a "change of control" (as such term is defined therein).

RESULTS OF OPERATIONS

	Three Months Ended March 31,	
	2022	2021
	$	$
Revenue	**-**	50
Expenses		
Research and development	**9,428**	7,640
General and administrative	**2,534**	4,066
Depreciation and amortization	**156**	97
	12,118	11,803
Net (loss) income from operations	**(12,118)**	(11,753)
Finance income	**(40)**	(13)
Finance expenses	**18**	-
Foreign exchange loss	**34**	44
(Gain) loss on fair value of warrant derivative	**(2,909)**	3,010
Total other expenses (income)	**(2,897)**	3,041
Net and comprehensive loss	**(9,221)**	(14,794)
Basic and diluted loss per share	**(0.8)**	(0.15)

Financial Position	**March 31, 2022**	December 31, 2021
Cash	**30,112**	32,306
Total assets	**35,528**	47,222
Total non-current liabilities	**946**	1,037
Total equity	**26,665**	35,293

Revenue

Revenue was $nil for the three months ended March 31, 2022 compared to $50 for the three months ended March 31, 2021. Revenue in the first quarter of 2021 was entirely related to services provided to Medtronic.

The Company has completed all of the milestones under the Development Agreement and the License Agreement with Medtronic and has earned $40.6 million of the maximum amount of $41 million. See "*Significant Transactions - Development Agreement & License Agreement with Medtronic* ".

Research and Development

Research and development ("**R&D**") expenses were $9.4 million for the three months ended March 31, 2022 compared to $7.6 million for the three months ended March 31, 2021.

R&D expenses in the current quarter were related to the development of the Enos System. In the quarter, the Company's R&D expenses were focused on finishing product development and transferring key components of the Enos System to manufacturing. In the comparative period, R&D expenses related to the development of the Enos System and the development work required to achieve the milestones under the Development Agreement with Medtronic.

The Company continues to resource its team in Chapel Hill that has grown to 48 employees at March 31, 2022 from 36 employees at December 31, 2021. The team is comprised of engineers, quality and regulatory staff focused on the development of the Enos System.

General and Administrative

General and administrative ("**G&A**") expenses were $2.5 million for the three months ended March 31, 2022 compared to $4.1 million for the three months ended March 31, 2021.

The decrease in G&A expenses in the quarter is related to a decrease in professional and consulting fees of $0.9 million and a decrease in stock-based compensation of $0.2 million.

Depreciation and Amortization

Depreciation and amortization expenses consists of depreciation of right of use assets, property plant and equipment and amortization of patent rights.

Depreciation and amortization expenses were $0.2 million for the three months ended March 31, 2022 compared to $0.1 million for the three months ended March 31, 2021.

The increase in depreciation and amortization expenses in the quarter is related to the expansion of the lease at the Company's facility in Chapel Hill in February 2021 and July 2021, equipment purchased to support R&D and manufacturing, and amortization of the Company's patents.

Net (Loss) Income from Operations

Net loss from operations was $12.1 million for the three months ended March 31, 2022 compared to $11.8 million for the three months ended March 31, 2021.

Other (income) expenses

During the three months ended March 31, 2022, the Company recognized other income of $2.9 million compared to other expenses of $3.0 million for the three months ended March 31, 2021.

	Three Months Ended March 31,	
	2022	2021
	$	$
Finance income	**(40)**	(13)
Finance expenses	**18**	-
Foreign exchange loss	**34**	44
(Gain) loss on fair value of warrant derivative	**(2,909)**	3,010
Total other (income) expenses	**(2,897)**	3,041

Finance income

Finance income was $40 for the three months ended March 31, 2022 compared to $13 for the three months ended March 31, 2021.

The increase in finance income in the quarter is related to interest income earned on the Company's cash balances.

Finance expenses

Finance expenses were $18 for the three months ended March 31, 2022 compared to $nil for the three months ended March 31, 2021. Finance expenses relate to the non-cash interest inherent in lease obligations for the Company's Chapel Hill facility.

Foreign exchange loss

Foreign exchange loss was $34 for the three months ended March 31, 2022 compared to $44 for the three months ended March 31, 2021. Foreign exchange loss in the quarter and the comparative period related to the revaluation of the Canadian dollar non-monetary assets.

(Gain) Loss on Fair Value of Warrant Derivative

For the three months ended March 31, 2022, the gain on the fair value of the warrant derivative was $2.9 million compared to a loss of $3.0 million for the three

months ended March 31, 2021.

The warrant derivative is marked to market at each reporting period and the gain or loss represents the change in valuation of the warrant derivative liability and can fluctuate significantly based on the market price of the Company's Common Shares.

Net and Comprehensive Loss

Net and comprehensive loss was $9.2 million for the three months ended March 31, 2022 compared to $14.8 million for the three months ended March 31, 2021.

The decrease in net loss in the quarter compared to 2020 was due to a $5.9 million difference in the fair value of the warrant derivative.

FINANCIAL POSITION

Working Capital

The Company defines working capital as current assets less current liabilities. Working capital was $24.0 million at March 31, 2022 compared to $32.8 million at December 31, 2021. Working capital includes the non-cash warrant derivative liability of $2.0 million. The Company anticipates that its working capital will be sufficient to continue to fund the development of its Enos System and operational expenses through the first quarter of 2023.

However, unexpected increases in costs and expenses due to operational decisions made by the Company and/or factors beyond the Company's control, such as pandemics including COVID-19 or any variants and international conflicts including the Russian invasion of Ukraine, could cause a material impact on working capital resources of the Company.

LIQUIDITY AND CAPITAL RESOURCES

	Three Months Ended March 31,	
	2022	2021
	$	$
Cash used in operating activities	(1,925)	(13,310)
Cash provided by (used in) financing activities	(101)	41,401
Cash used in investing activities	(168)	(190)
Net change in cash during the period	(2,194)	27,901
Cash and cash equivalents, beginning of period	32,306	25,469
Cash and cash equivalents, end of period	30,112	53,370

The Company had cash and cash equivalents of $30.1 million at March 31, 2022 compared to $32.3 million at December 31, 2021.

Operating Activities

Cash used in operating activities was $1.9 million for the three months ended March 31, 2022 compared to $13.3 million for the three months ended March 31, 2021.

Cash used in operating activities in the quarter was primarily related to the costs associated with the development of the Enos System, offset by the recovery of working capital related to the final milestone payment of $8.3 million from Medtronic that was received in January. In the comparative quarter, the cash used in operating activities related to the costs associated with the development of the Enos System and the development work under the Development Agreement with Medtronic. See "*Results of Operations – Research and Development* " and "*Significant Transactions - Development Agreement & License Agreement with Medtronic*".

Financing Activities

Cash used in financing activities was $0.1 million for the three months ended March 31, 2022 compared to cash provided by financing activities of $41.4 million for the three months ended March 31, 2021.

Cash used in financing activities in the quarter is related to the repayment of lease obligations for the Company's facility in Chapel Hill. In the comparative period, the Company raised $31.3 million from the issuance of Common Shares and warrants in two separate financings (see "*Significant Transactions – February 2021 Equity Offering and January 2021 Equity Offering*"). In addition, the Company received proceeds of $10.0 million related to the exercise of warrants.

Investing Activities

Cash used in investing activities was $0.2 million for the three months ended March 31, 2022 compared to $0.2 million for the three months ended March 31,2021. In the current and comparative quarter, the cash used in investing activities related to the purchase of equipment for the development of the Enos System and patent costs.

SELECTED QUARTERLY INFORMATION

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) / income figures include the non-cash effects of adjustments in the valuation of outstanding warrant liability.

	Revenue	**Net and comprehensive (loss) income**	**Basic and diluted (loss) earnings per share**

	$	$	$
March 31, 2022	-	(9,221)	(0.08)
December 31, 2021	10,000	9,431	0.08
September 30, 2021	-	(8,555)	(0.08)
June 30, 2021	10,043	(940)	(0.01)
March 31, 2021	50	(14,794)	(0.15)
December 31, 2020	10,000	(20,633)	(0.25)
September 30, 2020	-	(1,641)	(0.02)
June 30, 2020	10,000	(1,143)	(0.02)

Significant changes in key financial data from April 1, 2020 through March 31, 2022 reflect the following:

- the revenue recognition of the payments received pursuant to the Medtronic Agreements;
- the resumption of product development following receipt of license fees earned pursuant to the Medtronic License Agreement and Development Agreement;
- the equity capital raises in the capital markets, all since the second quarter of 2020;
- the Company established in-house R&D capabilities in Q3 2020 that increased staffing costs; and
- the ongoing non-cash impact associated with the requirement to revalue the Company's warrant derivative liability at fair value, with subsequent changes recorded through net and comprehensive loss for the period.

Historically, operating results have fluctuated on a quarterly basis and the Company expects that quarterly results will continue to fluctuate in the future. Operating results for interim periods should not be relied upon as an indication of the results to be expected or achieved in any future period or any fiscal year as a whole. Risk factors affecting revenue and results are discussed in the section entitled "*Risk Factors*" in the Annual Report.

CAPITAL MANAGEMENT

The Company's objective when managing capital is to maintain a strong statement of financial position. We achieve our objective by obtaining adequate cash resources to support planned activities which include manufacturing the Enos System, filing an IDE with the FDA, clinical studies, filing the De Novo application, administrative costs, and intellectual property expansion and protection. The Company defines its capital as cash and shareholders' equity, which as at March 31, 2022 totaled $56.8 million [December 31, 2021 - $67.7 million].

The Company does not have any debt other than accounts payable and accrued liabilities and lease liabilities. The Company does have commitments related to the Enos System.

In managing its capital, the Company estimates future cash requirements by preparing an annual budget for review and approval by its Board. The budget establishes the approved activities for the upcoming year and estimates the costs associated with these activities.

Historically, the Company has funded its operations through the issuance of additional Common Shares and common share purchase warrants that upon exercise are converted to Common Shares and through license revenue received under licensing agreements. While management regularly monitors the capital markets, general market conditions, and the availability of capital, there are no assurances that funds will be made available to the Company in the required amounts or when required. The Company has the ability to sell approximately 2.7 million shares under the terms of the Aspire Agreement, which will expire in June 2022.

Base Shelf

On July 30, 2019, the Company filed a Form F-3 registration statement (the "**Base Shelf**") that qualifies for distribution of up to $125,000,000 of Common Shares, warrants, or units (the "**Securities**") in either Canada, the U.S. or both.

Under the Base Shelf, the Company may sell Securities to or through underwriters, dealers, and also may sell Securities directly to purchasers or through agents, subject to obtaining any applicable exemption from registration requirements. The distribution of Securities may be effected from time to time in one or more transactions at a fixed price or prices, which may be subject to change, at market prices prevailing at the time of sale, or at prices related to such prevailing market prices to be negotiated with purchasers and as set forth in an accompanying Prospectus Supplement.

The Base Shelf provides the Company with additional flexibility when managing its cash resources as, under certain circumstances, it can shorten the time period required to close a financing and is expected to increase the number of potential investors that may be prepared to invest in the Company. Funds received as a result of using the Base Shelf would be used in line with the Board approved budget. The Base Shelf is effective until July 30, 2022.

Nasdaq Compliance

On December 30, 2021, the Company received a notification from the Nasdaq Stock Market LLC Listing Qualifications Department that it was not in compliance with the minimum bid price requirement set forth in Nasdaq Rule 5550(a)(2) since the closing bid price for the Company's common shares listed on Nasdaq was below US$1.00 for 30 consecutive business days. Nasdaq Rule 5550(a)(2) requires the shares to maintain a minimum bid price of US$1.00 per share, and Nasdaq Rule 5810(c)(3)(A) provides that failure to meet such a requirement exists when the bid price of the shares is below US$1.00 for a period of 30 consecutive business days.

These notifications do not impact the Company's listing on Nasdaq at this time. In accordance with Listing Rule 5810(c)(3)(A), the Company has a period of 180 calendar days from the date of notification, being until June 28, 2022, to regain compliance with the minimum bid price requirement, during which time the shares will continue to trade on Nasdaq. If at any time before June 28, 2022, the bid price of the shares closes at or above US$1.00 per share for a minimum of 10 consecutive business days, Nasdaq will provide written notification that the Company has achieved compliance with the minimum bid price requirement and will consider such deficiency matters closed.

The Company is also listed on the TSX and the notification does not affect the company's compliance status with such listing. The Company intends to evaluate all available options to resolve the deficiency and regain compliance with Nasdaq Rule 5550(a)(2).

CONTRACTUAL OBLIGATIONS

Contractual obligations relating to accounts payable and accrued liabilities, long-term debt, and lease liabilities and purchase order commitments as at March

31, 2022, are as follows:

	Total	Less than 1 year	2 – 3 years	4 – 5 years	Greater than 5 years
	$	$	$	$	$
Accounts payable and accrued liabilities	5,543	5,543	-	-	-
Lease liabilities	1,244	354	890	-	-
Purchase order commitments[1]	8,100		8,100	-	-
TOTAL	**14,887**	**5,897**	**8,990**	**-**	**-**

Note:

1. Purchase order commitments are obligations that are not reflected on the balance sheet. These are contracts with suppliers not yet fulfilled. These commitments are with engineering consulting firms to support the development of the Enos System and suppliers for parts to manufacture the Enos System and with our contract manufacturer to manufacture the Enos System.

OFF-BALANCE SHEET ARRANGEMENTS

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

OUTSTANDING COMMON SHARE DATA

The following table summarizes the outstanding share capital as of May 11, 2022:

Type of Securities	Number of Common Shares issued or issuable upon conversion
Common Shares [17]	111,202,690
Stock options	5,476,728
Restricted share units	2,008,374
Derivative warrant units	18,955,281
Equity warrants	9,912,633

Notes:

1. The Company has entered into an agreement with a consultant under which the Company has certain contractual obligations to grant up to 100,000 restricted Common Shares based on the consultant's achievement of multiple pre-determined performance criteria. To date, the performance criteria have not been achieved and no restricted Common Shares have been granted to the consultant. The agreement expires on May 13, 2022.

CRITICAL ACCOUNTING POLICIES AND ESTIMATES

A description of the Company's significant accounting policies are included in Note 2 of the Company's audited consolidated financial statements for the year ended December 31, 2021.

The preparation of the Consolidated Financial Statements in conformity with IFRS requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities at the date of the Consolidated Financial Statements and the reported amounts of revenue and expenses during the reporting periods. Management has identified accounting estimates that it believes are most critical to understanding the Consolidated Financial Statements and those that require the application of management's most subjective judgments, often requiring the need to make estimates about the effect of

matters that are inherently uncertain and may change in subsequent periods. The Company's actual results could differ from these estimates and such differences could be material.

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 derivative liabilities and the 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.

RELATED PARTY TRANSACTIONS

During the three months ended March 31, 2022, and March 31, 2021, 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, accounts payable and accrued liabilities and the warrant derivative liability. The fair value of these financial instruments approximates their carrying values, unless otherwise noted, due to the short-term maturities of these instruments, the discount rate applied or in the case of the warrant liability, due to the application of mark-to-market policy.

INTERNAL CONTROL OVER FINANCIAL REPORTING

Management is responsible for the design of internal controls over financial reporting (" **ICFR**") within the Company, in order to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with IFRS.

National Instrument 52-109 – *Certification of Disclsoure in Issuers' Annual and Interim Filings* requires the Chief Executive Officer and Chief Financial Officer to certify that they are responsible for establishing and maintaining ICFR for the Company and that those internal controls have been designed and are effective in

providing reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with IFRS. The Chief Executive Officer and Chief Financial Officer are also responsible for disclosing any changes to the internal controls for the Company that have materially affected, or are reasonably likely to materially affect, the Company's ICFR.

Management, including the Chief Executive Officer and Chief Financial Officer, does not expect that the internal controls over financial reporting of the Company will prevent or detect all errors and all fraud or will be effective under all potential future conditions. A control system is subject to inherent limitations and, no matter how well designed and operated, can provide only reasonable, not absolute, assurance that the control systems objectives will be met.

Further, the design of a control system must reflect that there are resource constraints, and the benefits of controls must be considered relative to their costs. Inherent limitations include the realities that judgments in decision making can be faulty, and that breakdowns can occur because of simple errors or mistakes. Controls can also be circumvented by individual acts of some persons, by collusion of two or more people or by management override of the controls. Due to the inherent limitations in a cost-effective control system, misstatements due to error or fraud may occur and not be detected. The design of any control system is also based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential conditions. Projections of any evaluations 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 the policies or procedures may deteriorate.

There have been no changes in the ICFR of the Company during the period of this MD&A that have materially affected, or are reasonably likely to materially affect, the Company's ICFR.

RISK FACTORS

For a detailed description of risk factors associated with the Company, refer to the "Risk Factors" section of the Form 20-F, which is available on SEDAR at www.sedar.com and EDGAR at www.sec.gov.

An investment in the Company's securities is speculative and involves a high degree of risk due to the nature of the Company's business. It is recommended that investors consult with their own professional advisors before investing in the Company's securities.

Exhibit 99.4

FORM 52-109F2
CERTIFICATION OF INTERIM FILINGS
FULL CERTIFICATE

I, Paul Cataford, Interim President and Chief Executive Officer of Titan Medical Inc., certify the following:

1. ***Review:*** I have reviewed the interim financial report and interim MD&A (together, the "interim filings") of Titan Medical Inc. (the "issuer") for the interim period ended March 31, 2022.

2. ***No misrepresentations:*** Based on my knowledge, having exercised reasonable diligence, the interim 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, with respect to the period covered by the interim filings.

3. ***Fair presentation:*** Based on my knowledge, having exercised reasonable diligence, the interim financial report together with the other financial information included in the interim 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 interim filings.

4. ***Responsibility:*** The issuer's other certifying officer 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 and I have, as at the end of the period covered by the interim filings

   (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 interim 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 and I used to design the issuer's ICFR is Integrated Framework (COSO).

5.2 ***ICFR – material weakness relating to design:*** N/A

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

6. ***Reporting changes in ICFR:*** The issuer has disclosed in its interim MD&A any change in the issuer's ICFR that occurred during the period beginning on January 1, 2022 and ended on March 31, 2022 that has materially affected, or is reasonably likely to materially affect, the issuer's ICFR.

May 12, 2022

(SIGNED) "Paul Cataford"

Paul Cataford
Interim President and Chief Executive Officer

Exhibit 99.5

FORM 52-109F2
CERTIFICATION OF INTERIM FILINGS
FULL CERTIFICATE

I, Stephen Lemieux, Chief Financial Officer of Titan Medical Inc., certify the following:

1. ***Review:*** I have reviewed the interim financial report and interim MD&A (together, the "interim filings") of Titan Medical Inc. (the "issuer") for the interim period ended March 31, 2022.

2. ***No misrepresentations:*** Based on my knowledge, having exercised reasonable diligence, the interim 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, with respect to the period covered by the interim filings.

3. ***Fair presentation:*** Based on my knowledge, having exercised reasonable diligence, the interim financial report together with the other financial information included in the interim 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 interim filings.

4. ***Responsibility:*** The issuer's other certifying officer 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 and I have, as at the end of the period covered by the interim filings

   (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 interim 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 and I used to design the issuer's ICFR is Integrated Framework (COSO).

5.2 ***ICFR – material weakness relating to design:*** N/A

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

6. ***Reporting changes in ICFR:*** The issuer has disclosed in its interim MD&A any change in the issuer's ICFR that occurred during the period beginning on January 1, 2022 and ended on March 31, 2022 that has materially affected, or is reasonably likely to materially affect, the issuer's ICFR.

May 12, 2022

(*signed*) *"Stephen Lemieux"*

Stephen Lemieux
Chief Financial Officer