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 April, 2020.

Commission File Number: 001-38524

Titan Medical Inc.

(Exact Name of Registrant as Specified in Charter)

155 University Avenue, Suite 750 Toronto, Ontario M5H 3B7 Canada

(Address of principal executive offices)

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

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: April 30, 2020

 By:
 /s/ Stephen Randall

 Name:
 Stephen Randall

 Title:
 Chief Financial Officer

EXHIBIT INDEX

Titan Medical and Its Primary Product Development Supplier Agree to Payment Plan for Outstanding Amounts and Resumption of Development Services

TORONTO--(BUSINESS WIRE)--April 30, 2020-**Titan Medical Inc. ("Titan" or the "Company") (TSX: TMD) (Nasdaq: TMDI)**, a medical device company focused on the design and development of a single-port robotic surgical system for application in minimally invasive surgery ("MIS"), announces that it has entered into a letter agreement ("Letter Agreement") with its primary product development supplier ("Primary Supplier") for the payment of outstanding payables.

Under the terms of the Letter Agreement, and subject to the Company securing sufficient funding by raising further capital, for which it cannot give any assurances, the Company plans to pay the Primary Supplier in full satisfaction of the outstanding payables by the end of the current calendar year. Also, under the terms of the Letter Agreement, the Primary Supplier has agreed to resume services with regard to the development of the Company's robotic surgical system subject to the Company meeting the new payment terms.

David McNally, President and CEO of Titan Medical, said, "We are pleased to have come to mutually-acceptable terms with this supplier on the payment of outstanding amounts and plans to restart product development of our single-port robotic surgical system.

"We value this supplier's contributions to the development and manufacturing of our single-port robotic surgical system, including the assembly of prototypes used in our successful preclinical studies, and appreciate their patience in the payment of the outstanding payables," he added.

About Titan Medical Inc.

Titan Medical Inc. is focused on computer-assisted robotic surgical technologies for application in MIS. The Company is developing a single-port robotic surgical system comprised of a surgeon-controlled patient cart that includes a dual-view camera system with 3D and 2D high-definition vision options and multi-articulating instruments for performing MIS procedures, and a surgeon workstation that provides an advanced ergonomic interface to the patient cart and a 3D endoscopic view inside the patient's body. Titan intends to initially pursue gynecologic surgical indications for use of its single-port robotic surgical system.

For more information, please visit the Company's website at www.titanmedicalinc.com.

Forward-Looking Statements

This news release contains "forward-looking statements" within the meaning of applicable Canadian and U.S. securities laws. Such statements reflect the current expectations of management of the Company's future growth, results of operations, performance and business prospects and opportunities and include statements regarding the Company's agreement to pay outstanding amounts owed to the Primary Supplier and the Primary Supplier's agreement to resume product development services. The Company does not at this time have sufficient funds to make the payments to the Primary Supplier as called for by the Letter Agreement and it will need to raise further capital to fund its commitment under the agreement. There is no assurance that the Company will be able to raise further capital. Wherever possible, words such as "may", "would", "could", "will", "anticipate", "believe", "plan", "expect", "intend", "estimate", "potential for" and similar expressions have been used to identify these forward-looking statements. These statements reflect management's current beliefs with respect to future events and are based on information currently available to management. Forward-looking statements involve significant risks, uncertainties and assumptions. Many factors could cause the Company's actual results, performance or achievements to be materially different from any future results, performance or achievements that may be expressed or implied by such forward-looking statements, including, without limitation, those listed in the "Risk Factors" section of the Company's Annual Report on Form 20F dated March 30, 2020 (which may be viewed at www.sedar.com and at www.sec.gov). Should one or more of these risks or uncertainties materialize, or should assumptions underlying the forward-looking statements prove incorrect, actual results, performance, or achievements may vary materially from those expressed or implied by the forward-looking statements contained in this news release. These factors should be considered carefully, and prospective investors should not place undue reliance on the forward-looking statements. Although the forward-looking statements contained in the news release are based upon what management currently believes to be reasonable assumptions, the Company cannot assure prospective investors that actual results, performance or achievements will be consistent with these forward-looking statements. Except as required by law, the Company expressly disclaims any intention or obligation to update or revise any forward-looking statements whether as a result of new information, future events or otherwise.

Contacts

Stephen Randall Chief Financial Officer 416-548-7522 stephen@titanmedicalinc.com