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, 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 ⊠ 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.

Exhibit 99.1 to this Report on Form 6-K will be deemed to be incorporated by reference into the Registrant's Form F-3 registration statement filed on July 30, 2019 (File No. 333-232898).

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 4, 2020 By: /s/ Stephen Randal

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

99.1 News Release dated May 4, 2020

Titan Medical Announces US\$2.0 Million Registered Direct Offering Priced At-the-Market Under Nasdaq Rules

TORONTO--(BUSINESS WIRE)--May 4, 2020--**Titan Medical Inc.** ("**Titan**" or the "**Company**") (**TSX:TMD**) (**Nasdaq:TMDI**), a medical device company focused on the design, development and commercialization of a robotic surgical system for application in minimally invasive surgery ("**MIS**"), is pleased to announce today that it has entered into definitive agreements with institutional investors that provide for the purchase and sale of 5,514,504 common shares of the Company (the "**Common Shares**") at a per share purchase price of US\$0.36268 per Common Share in a registered direct offering priced at-the-market under Nasdaq rules, resulting in expected total gross proceeds of approximately US\$2.0 million. In addition, Titan has agreed to issue to the investors unregistered warrants to purchase up to an aggregate of 2,757,252 Common Share purchase warrants (each, a "**Warrant**"). Each whole Warrant is exercisable to purchase one Common Share (a "**Warrant Share**") at an exercise price of US\$0.3002 per Common Share for a period of five and one-half (5.5) years following the date of closing of the offering.

H.C. Wainwright & Co. is acting as the exclusive placement agent for the offering.

The closing of the sale of the securities is expected to occur on or about May 6, 2020, subject to the satisfaction of customary closing conditions including required approvals from the Toronto Stock Exchange ("TSX"). Titan intends to use the net proceeds from the offering for general corporate purposes including: resuming the development of its single-port robotic surgical system, instruments and accessories; funding working capital (including the reduction of outstanding payables); and capital expenditures.

The Common Shares (but not the Warrants or the Common Shares underlying the Warrants) are being offered and sold in the registered direct offering by Titan pursuant to a "shelf" registration statement on Form F-3 (Registration No. 333-232898), including a base prospectus, previously filed with and declared effective by the Securities and Exchange Commission (the "SEC") on August 2, 2019. The offering of the Common Shares will be made only by means of a prospectus supplement that forms a part of the registration statement to be dated on or about May 4, 2020. The prospectus supplement will be filed with the SEC and will be available on the SEC's website located at http://www.sec.gov. Electronic copies of the prospectus supplement and accompanying base prospectus may also be obtained, when available, by contacting H.C. Wainwright & Co., LLC at 430 Park Avenue, 3rd Floor, New York, NY 10022, by phone at 646-975-6996 or e-mail at placements@hcwco.com.

The Warrants described above were offered in a private placement under the United States Securities Act of 1933, as amended (the "Act"), and the Warrants and Common Shares issuable upon exercise of the Warrants have not been registered under the Act or applicable state securities laws. Accordingly, the Warrants and Common Shares issuable upon exercise of the Warrants may not be offered or sold in the United States except pursuant to an effective registration statement or an applicable exemption from the registration requirements of the Act and such applicable state securities laws.

This press release shall not constitute an offer to sell or the solicitation of an offer to buy, nor shall there be any sale of these securities in any jurisdiction in which such offer, solicitation or sale would be unlawful prior to the registration or qualification under the securities laws of any such jurisdiction, and no securities will be offered or sold to residents of Canada.

The TSX has confirmed that the Company qualifies as an "Eligible Interlisted Issuer" pursuant to Section 602.1 of the TSX Company Manual which provides that the TSX will not apply certain of its requirements to issuers whose shares are listed on another recognized stock exchange such as the Nasdaq Capital Market. The TSX has determined to accept notice of the Offering and has conditionally approved for listing up to an additional 29,328,422 Common Shares.

About Titan

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. 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, including with respect to the closing date of the offering and the use of the net proceeds of the offering, 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 for the year ended December 31, 2019 (which may be viewed at www.sedar.com and 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 statem

Contacts

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