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 July, 2019.

Commission File Number: 001-38524

Titan Medical Inc.

(Exact Name of Registrant as Specified in Charter)

170 University Avenue, Suite 1000 Toronto, Ontario M5H 3B3 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): _X
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 privarissuer 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 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: July 18, 2019

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

99.1 News Release dated July 18, 2019.

Titan Medical Completes Preclinical Good Laboratory Practice Procedures With Its Single-Port Robotic Surgical System

TORONTO--(BUSINESS WIRE)--July 18, 2019--**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"), announces that all procedures under Good Laboratory Practice ("GLP") principles associated with the acute and chronic animal studies and human cadaver studies using its single-port robotic surgery system have been completed. The Company intends to announce the results of required follow-up to the chronic procedures by the end of August.

"We are pleased to have completed all of the planned GLP procedures necessary for our Investigational Device Exemption ("IDE") application to the U.S. Food and Drug Administration ("FDA")," said David McNally, Titan's chief executive officer. "Anticipating positive results from the chronic study, we subsequently plan to submit the IDE application to the FDA during the current quarter. Meanwhile, we are proceeding with human factors studies that were previously planned for the second quarter and moved to the third quarter in order to accommodate the GLP procedures, which from a timing perspective, were our priority. All of this data, along with the confirmatory human data to be collected from studies under the IDE, is intended to support our planned 510(k) application for U.S. marketing clearance of our single-port robotic surgery system, and a concurrent application for the CE mark planned by year-end 2019."

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 3D high-definition vision system 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" which 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 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 Information Form dated March 29, 2019 (which may be viewed at www.sedar.com). 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.

Contacts

LHA Investor Relations Kim Sutton Golodetz (212) 838-3777 kgolodetz@lhai.com or Bruce Voss (310) 691-7100 bvoss@lhai.com