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 August 2021

Commission File Number: 001-38524

Titan Medical Inc.

(Exact Name of Registrant as Specified in Charter)

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

(Address of principal executive offices)

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

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: August 2, 2021

By:/s/ Stephen LemieuxName:Stephen LemieuxTitle:Chief Financial Officer

EXHIBIT INDEX

99.1 News Release dated August 2, 2021

Titan Medical Announces Appointment of Tammy Carrea as Vice President of Quality and Regulatory Affairs

TORONTO--(BUSINESS WIRE)--August 2, 2021--Titan Medical Inc. (Nasdaq: TMDI; TSX: TMD), a medical device company focused on the design and development of surgical technologies for robotic single access surgery, today announced the appointment of Tammy Carrea as Vice President of Quality and Regulatory Affairs.

"We are delighted that Tammy has joined Titan Medical's leadership team as we advance our Enos™ robotic single access surgery system toward human clinical studies," said David McNally, President and Chief Executive Officer. "Her proven track record in developing and implementing clinical and regulatory strategies, obtaining medical device regulatory clearances and successfully managing FDA inspections will be invaluable assets for Titan. It is my pleasure to welcome Tammy to Titan and I look forward to working with her as we progress toward submitting our application for Investigational Device Exemption for the Enos system to the FDA."

Ms. Carrea has more than 25 years of experience in managing quality assurance and regulatory affairs activities in the medical device industry, including robotic assisted surgery. Ms. Carrea has been responsible for global submissions and registrations for Class 1, 2, and 3 medical devices including De Novo applications. Most recently, she served as Vice President, Regulatory and Clinical Affairs and Security Officer of Translational Imaging Innovations, Inc., which produced software for ophthalmology medical imaging and cloud data management to enable AI algorithm development. Ms. Carrea holds a Bachelor of Science Degree in Materials Science and Engineering from North Carolina State University, and a Master of Science Degree in Quality and Regulatory Affairs from Temple University, with a concentration in medical devices and clinical research.

"I am thrilled to join Titan's impressive leadership team during such a pivotal time in the company's evolution. I look forward to applying my background and experience to help the company to realize its vision for commercializing its Enos robotic single access surgical system for the benefit of patients, while enhancing the surgical experience for surgeons and hospital staff," said Ms. Carrea.

Curtis Jensen, Titan's Vice President of Quality and Regulatory Affairs since April 2017, leaves the Company to pursue other opportunities in the medical device industry. "We thank Curtis for his contributions to the development program for the Enos system. Curtis commuted a long distance to Chapel Hill while the Company established a team to advance the development of the Enos system. We wish Curtis the best in his future endeavors," said David McNally.

About Titan Medical

Titan Medical Inc. (Nasdaq: TMDI; TSX: TMD), a medical device company headquartered in Toronto, Ontario and with R&D facilities in Chapel Hill, North Carolina, is focused on enhancing robotic assisted surgery using innovative technology through a single access point. The EnosTM 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.

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

Enos™ is a trademark of Titan Medical Inc.

For more information, visit www.titanmedicalinc.com.

Forward-Looking Statements

This news release contains "forward-looking statements" within the meaning of applicable Canadian and U.S. securities laws, 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, including, without limitation, references to: the Company's progress toward submitting an application for Investigational Device Exemption for the Enos system to the FDA; the Company's focus on the design and development of surgical technologies for robotic single access surgery; the Enos system is being developed with dual 3D and 2D high-definition vision systems, multi-articulating instruments and an ergonomic surgeon workstation; 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 Information Form and Form 40-F for the fiscal year ended December 31, 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

Kristen Galfetti Vice President, Investor Relations & Corporate Communications +1-781-869-2553 investors@titanmedicalinc.com