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 September 8, 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: September 8, 2020

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

EXHIBIT INDEX

Titan Medical Announces Chief Financial Officer Retirement and Successor Appointment

TORONTO--(BUSINESS WIRE)--September 8, 2020--Titan Medical Inc. ("Titan" or the "Company") (TSX: TMD) (Nasdaq: TMDI), a medical device company focused on the design and development of single-port robotic surgical technologies, today announced its Chief Financial Officer (CFO) Stephen Randall will retire after more than 10 years with Titan. As part of the Company's succession planning process, Monique L. Delorme, currently Vice President, Finance at Titan, will be promoted to CFO effective October 1, 2020.

During his tenure at Titan, Mr. Randall played a leading role in financing Titan through 30 capital transactions, raising more than US \$260 million to fund the Company's research and development in robotic surgical technologies.

"For the past 10 years, Stephen has played a pivotal role in Titan's journey from an early stage start up to become a leader in single-port robotic surgical technologies," said David McNally, President and CEO of Titan Medical Inc. "Stephen's leadership, guidance and unwavering commitment to Titan has been vital to our business - and for that we thank him. I am also pleased that Stephen will remain with the Company in his capacity as a director of the board and will continue to guide the Company toward realizing its vision for improving patient outcomes with its single-port robotic surgical system."

Ms. Delorme joined the Company in March of 2019 and has been working closely with Mr. Randall during this transition period.

Ms. Delorme brings over 25 years of senior corporate leadership experience in the areas of finance, operations, corporate strategy and change management. She has served as a financial executive for several large and small publicly traded companies where she earned a reputation as a strategic leader with strong execution and communications skills. In 2012, she launched a successful consulting practice providing financial and CFO services to both private and public companies. Ms. Delorme is a Certified Public Accountant and a graduate of McGill University.

"On behalf of the Board of Directors and Titan employees, I would like to thank Stephen for his dedication and contributions to Titan and wish him the best for a welldeserved retirement," said David McNally. "I am excited for Monique's promotion to CFO, having worked together with her during the transition period. Her experience and leadership skills, as well as her in-depth understanding of Titan's financial operations, made her the obvious choice as our new CFO. I welcome Monique to the executive team and look forward to her continuing contributions to Titan."

About Titan

Titan Medical Inc. is focused on robotic-assisted technologies for application in minimally invasive surgery ("MIS"). Titan 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 systems and multi-articulating instruments for performing MIS procedures, and a surgeon workstation that provides an ergonomic interface to the patient cart and a 3D high-definition endoscopic view of the MIS procedure. Titan intends to initially pursue gynecologic surgical indications for use with its single-port robotic surgical system.

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. 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 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 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, and the assumptions, and the assumptions, and the assumptions, the Company expressly disclaims any intention or obligation to update or revise any forward-looking statements contained in the news release are based upon what management currently believes to be reasonable assumptions, the Company expressly disclaims any intention or obligation to update or revise any forward-looking statements. Except as r

Contacts

Stephen Randall Chief Financial Officer +1-416-548-7522 stephen@titanmedicalinc.com