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 December 17, 2018.

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 of 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 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: December 17, 2018 By: /s/ Stephen Randall

Name: Stephen Randall
Title: Chief Financial Officer

Titan Medical Expands Global Patent Portfolio for Single-Port Robotic Surgery with Seven Grants and Notices of Allowance

TORONTO--(BUSINESS WIRE)--December 17, 2018--Titan Medical Inc. (TSX:TMD) (Nasdaq:TMDI) ("Titan" or the "Company"), a medical device company focused on the design and development of a robotic surgical system for application in minimally invasive surgery ("MIS"), announces seven new patent grants and notices of allowance related to its single-port robotic surgery technology, including patents covering multi-articulating instruments, robotic system control and user interfaces. Including these new patents and notices, the Company has 28 issued patents and 70 pending patent applications in the U.S., Europe, Canada, Australia, Japan and China.

With respect to the technology behind its unique multi-articulating instruments for single-port robotic surgical systems, the Company has been granted Japanese Patent No. 6433595, titled "Actuator and Drive for Manipulating a Tool." This is the Company's second patent in Japan. Also related to its unique multi-articulating instruments, the Company has received notices of allowance in the United States and China for patent applications titled "Articulated Tool Positioner and System Employing Same." Once issued in the coming weeks, this will be the Company's first patent in China. Titan continues to develop technologies with respect to its multi-articulating instruments and anticipates filing additional patents to strengthen its unique position in single-port surgical robotics.

The Company has also been granted U.S. Patent No. 10,130,434, titled "Robotic System Display Method for Displaying Auxiliary Information," which builds on some of the early research and development activities undertaken by Titan in communicating auxiliary information to the surgeon user. The Company has also received a notice of allowance in the United States for a patent application titled "Robotic Hand Controller," which is generally related to communicating robotic system information to the user surgeon by means of a haptic interface. Titan expects to continue to expand its patent portfolio around the provision of effective information and ergonomic interfaces for surgeons and bedside assistants.

In addition to patent grants and notices of allowance with respect to robotic instruments and user interfaces, the Company has also received notices of allowance in the United States and Europe for patent applications related generally to control methods for robotic surgical systems, including the provision of select control and safety functions that enable optimal controllability of robotic instruments during use. These control methods are directed at alignment control of robotic instruments, including the multi-articulated instruments as employed in the Company's robotic surgical system, which are important for facilitating movement within a single-port surgical site.

"The granting of these patents and those pending issuance further strengthen Titan's position as a leader in single-port robotic surgery technology," commented David McNally, President and CEO of Titan Medical. "It is exciting to see the progress we have made in protecting our intellectual property in major markets around the world.

"I commend our team's technical and strategic skills and the great strides being made by engineers working to develop and further innovate the SPORT Surgical System. We believe our system offers advanced technology in single-port robotic surgery, and these recent patent grants and notices of allowance demonstrate our creativity in establishing and protecting our market position," he added.

About Titan Medical Inc.

Titan Medical Inc. is focused on research and development through to the planned commercialization of computer-assisted robotic surgical technologies for application in minimally invasive surgery. The Company is developing the SPORT Surgical System, a single-port robotic surgical system. The SPORT Surgical System is 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 focused surgical indications for the SPORT Surgical System, which may include one or more of gynecologic, colorectal or general abdominal procedures.

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 31, 2018 (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.

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