Titan Medical Issues Shareholder Update Letter

TORONTO--(BUSINESS WIRE)-- **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 issued an update letter to its shareholders. The letter, authored by David McNally, President & CEO, Chairman, may be found on the Company's website and a full text of the letter follows.

July 14, 2020

Dear Titan Medical Shareholders,

As we commence the second half of 2020, I provide you with a brief review of the first half and outline our focus for the remainder of the year.

I am honored to be surrounded by a diligent team at Titan Medical and proud of its work over recent months to address the Company's acute shortage of capital. We are pleased with our recent accomplishments, including the secured loan and development and license agreements with Medtronic, successful equity capital raises, payment plan for outstanding debt with a product development service provider, and settlement of ongoing litigation with another product development service provider.

Our innovations in robotic-assisted surgery have yielded technology and an intellectual property portfolio that we have been able to strategically leverage. In this letter, I highlight the significance of the development and license agreements and describe the strategy for development of our single-port robotic surgical system.

Medtronic Agreements

On June 3, 2020, we entered into several agreements with an affiliate of Medtronic plc, including a development and license agreement to further the development of robotic assisted surgical technologies, as well as a separate license agreement in respect of certain intellectual property of Titan.

The development and license agreement provides for the development of robotic assisted surgical technologies for use by both Titan and Medtronic in their respective robotic assisted surgery businesses. As technology milestones are completed and verified, we will be entitled to receive a series of license payments totaling up to \$31 million for Medtronic's rights to such technologies. Our engineering team and product development partners are working toward the achievement of the first milestone in October 2020. If successful, Titan will receive a payment of \$10 million before proceeding to the second of the three development milestones, to be completed in 2021.

Under the terms of the separate license agreement, Medtronic has licensed certain robotic assisted surgical technologies from Titan for an upfront license payment of \$10 million, which

we received in June 2020. Titan retains the rights to continue to develop and commercialize those technologies for its own business. These agreements with Medtronic allow Titan to continue to develop its single-port robotic surgical technologies while sharing our expertise and technologies with Medtronic.

Development Status and Milestones

Through the \$10 million license payment and \$1.5 million loan from Medtronic, and the over \$20 million raised in public equity, we have been able to resume product development of our single-port robotic surgical system. Robotic systems designed for surgery are highly technical and complex pieces of equipment, involving medical-grade software and numerous electro-mechanical systems, precise surgical instruments and sterile interface components, all designed for instinctive use and successful surgical outcomes. To facilitate the unique design and development of our system, Titan has engaged individuals and third parties with specialized competencies for assistance with certain aspects of our system such as our innovative dual-view camera system, multi-articulating instruments and simulation training software. We have also established a U.S. subsidiary to initially focus on product development activities, which is based at our new dedicated, purpose-built space in North Carolina's Research Triangle, a leading high-tech and medical technology hub, which is also in close proximity to our development partners. The recruitment of highly skilled and experienced technical personnel to manage, execute and provide in-house expertise in product development is well underway.

Positioning of our Single-port Robotic Surgical System

The opportunity for single-port robotic surgery appears promising, with initial and on-going clinical success being reported by surgeons using Intuitive Surgical's da Vinci SP®, the only commercially available single-port offering, but currently with surgical indications outside our initial target area. We believe that our robotic assisted surgical system, having been designed with a focus on single-port surgery, may provide competitive advantages for physicians and their clinical teams, hospitals and patients. Should we be able to complete product development and achieve regulatory clearance in a timely manner, upon commercialization we expect our single-port system to expand the market for robotic assisted surgery with attractive pricing, a reduced operating room footprint and greater portability within the hospital. With these target product attributes, we intend to focus early commercialization efforts on U.S. ambulatory surgery centers wishing to perform benign procedures in a lower-cost setting compared to hospitals.

Financing

We are grateful to the retail and institutional shareholders that have financed Titan Medical over its 12-year history. Earlier this year, we raised \$21.2 million through three financings led by H.C. Wainwright & Co., plus \$2 million from an equity line of credit provided by Aspire Capital Fund, LLC. We estimate that in addition to our current cash on hand, plus \$31 million in payments that we are entitled to receive upon achievement of the milestones defined under the Medtronic development and license agreement, we will have sufficient capital to operate and work towards achievement of certain product development milestones over the next 12 months. We will continue to evaluate and consider financing options as they become available, including equity and debt, to best position Titan Medical to complete product development and preparation of regulatory filings related to our single-port robotic surgical system.

In Summary

Looking ahead, we believe that the estimated magnitude of the robotic assisted surgery market opportunity justifies the investment of substantial human and financial capital to improve patient outcomes through single-port robotic surgery. We remain committed to our vision of delivering both patient and physician satisfaction through a product that, upon completion, we expect will be able to reduce trauma and deliver virtually scar-free surgery.

I have often said that I am proud of our team, which includes our employees, our expert consultants, development and manufacturing partners, and the surgeons who advise us. It is through their ongoing commitment, energy, guidance and teamwork that we have achieved so much, and most recently in spite of the COVID-19 pandemic. We remain grateful to you, our shareholders, who have provided the capital for our growing team to execute on our collective vision for single-port robotic surgery.

I look forward to reporting on our progress.

Sincerely,

David McNally President & CEO, Chairman

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 of 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 and include statements regarding the Company's focus for the remainder of the year, the Company's payment plan for outstanding debt, the Company's strategy for development of its single-port robotic surgical system, the Company's plan to further the development of robotic assisted surgical technologies, the completion and verification of milestones and related license payments, the timeline for the expected completion of the first and second milestones and anticipated payment for same, the effect of the Medtronic agreements on the Company's development of its single-port robotic surgical technology while sharing its expertise with Medtronic, the initial focus of the Company's US subsidiary, the competitive advantage the Company believes that its robotic assisted surgical system will provide, the effect on the market that the Company expects its single-port system to have if commercialized, the Company's belief regarding its product attributes and their appeal to U.S. ambulatory surgery centers, the Company's estimation that it will have sufficient capital over the next 12 months, the Company's belief that the robotic surgery market justifies the investment of human and financial capital and the Company's expectation that it will be able to reduce trauma and deliver virtually scar-free surgery. 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 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.

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