

May 15, 2012

TITAN MEDICAL

Titan Medical Inc. Announces Results for the Three Months Ended March 31, 2012

TORONTO, ONTARIO -- (Marketwire) -- 05/15/12 -- Titan Medical Inc. ("Titan" or the "Company") (TSX VENTURE: TMD)(OTCQX: TITXF) announced today results for the three months ended March 31, 2012.

The unaudited condensed interim financial statements for the period may be viewed on SEDAR.

Craig Leon, Chief Executive Officer of Titan Medical, Inc., said, "I am pleased with the accomplishments in the first quarter of 2012. We focused on advancing the development of the Amadeus™ Surgical System and expanding our technology portfolio, our relationships in the medical community and our investment community awareness in the U.S. with the listing on the OTCQX."

Operational Highlights

- Signed an exclusive license agreement with Columbia University for the Insertable Robotic Effector Platform ("IREP"), a single site robotic surgery system.
- Signed a non-binding memorandum of understanding with Clinique Generale-Beaulieu ("CGB"), a leading medical clinic based in Geneva, Switzerland.
- The Company's common shares commenced trading on the international tier of the OTCQX market in the United States under the ticker symbol "TITXF".
- Completed an equity offering of 1,986,755 units from treasury for gross proceeds of \$3,000,000.

Financial Highlights

- Cash and cash equivalents at March 31, 2012 totaled \$8,023,102, compared to \$9,738,822 at December 31, 2011.
- Net loss for the three months ended March 31, 2012 was \$3,327,534 compared to a net loss of \$2,112,045 for the equivalent period in 2011.
- In line with Company objectives of increasing R&D, investments for the three months ended March 31, 2012 were \$2,190,074 compared to \$1,423,320 for the equivalent period in 2011.

About Titan Medical Inc.

Titan Medical Inc. is a Canadian public company (TSX VENTURE: TMD)(OTCQX: TITXF) focused on the development and commercialization of robotic surgical technologies. The Company is currently developing the Amadeus™ Surgical System, a robotic surgery platform designed with the objective to allow surgeons to overcome constraints of surgical procedures in small to medium spaces. Robotic surgery has developed over the past 10

years into a proven and growing method of treatment. According to a Robotic Surgery Equipment Manufacturing report, industry revenue is projected to increase at an average annual rate of 14.9% to \$4.2 billion in the five years to 2016. The Company is researching and developing innovative technologies to empower surgeons to use robots in the operating room of the future. For more information, 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 30, 2012 (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.

Neither TSX Venture Exchange nor its Regulation Services Provider (as that term is defined in the policies of the TSX Venture Exchange) accepts responsibility for the adequacy or accuracy of this release.

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