

May 19, 2010

TITAN MEDICAL

Titan Medical Inc. Announces Results for the Three Months Ended March 31, 2010

TORONTO, ONTARIO -- (MARKET WIRE) -- 05/19/10 -- Titan Medical Inc. ("Titan" or the "Company") (TSX VENTURE: TMD) is pleased to announce its results for the three months ended March 31, 2010. The financial statements and Management's Discussion and Analysis for the period may be viewed on SEDAR.

Operational Highlights

Titan continued to successfully pursue key strategic relationships with technology development partners and continued its efforts to secure its intellectual property through the patent process in the first quarter of 2010. In addition, it raised net proceeds of \$1,201,801 through the issuance of common shares and has recently filed a preliminary short form prospectus with the Ontario Securities Commission in respect of an offering of units.

Titan is focused on the development of robotic surgical technologies. The Company is currently developing Amadeus, a next generation 4-armed robotic surgical system, with the objective of enabling surgeons to remotely manipulate surgical instruments. Robotic surgery has developed over the past 10 years into a proven and growing method of treatment. The global robotic surgical market size is currently estimated to be \$3.4 billion with potential for placement of 6,000 robotic surgical systems. The Company is researching and developing innovative technologies to empower surgeons to use robots in the operating room of the future.

Financial Highlights:

- Cash and cash equivalents at March 31, 2010 totaled \$3,751,308 (December 31, 2009 \$3,213,027).
- The net loss for the three months ended March 31, 2010 was \$529,076 and \$191,847 for the year ended March 31, 2009.
- The Company's R&D investments for the three months ended March 31, 2010 were \$182,338 and \$71,347 for the three months ended March 31, 2009.

Craig Leon, Chief Executive Officer of Titan Medical Inc., commented on the results by saying "I am very pleased with our continued progress in establishing strategic relationships and the further development of Amadeus."

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" 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 Filing Statement dated July 8, 2008 (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.

The TSX Venture Exchange does not accept responsibility for the adequacy or accuracy of this release.

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