Overview Presentation

TSX: TMD | Nasdaq: TMDI

March 23, 2020
Forward-looking Statements

This presentation contains “forward-looking information” and “forward-looking statements” which relate to future events or future performance and reflect the current expectations and assumptions of management of the Company’s future growth, results of operations, performance and business prospects, opportunities, and illustrations and prototypes of the SPORT Surgical Systems. Wherever possible, words such as “may”, “would”, “could”, “will”, “anticipate”, “believe”, “plan”, “expect”, “intend”, “estimate”, “project”, “predict”, “target”, “potential”, 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, achievements or technological development and implementation to be materially different from any future results, performance, achievements or technological development and implementation 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 in respect of the fiscal year ended December 31, 2018, the additional risks set forth in the Company’s management’s discussion and analysis in respect of the three and nine months ended September 30, 2019, and other information contained in the Company’s public filings (which may be viewed at www.sedar.com and at www.sec.gov). Information contained in this presentation is qualified in its entirety by such public filings. 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 presentation. 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 presentation are based upon what management currently believes to be reasonable assumptions as of the date of this presentation, there is no assurance that actual results, performance or achievements will be consistent with these forward-looking statements. This presentation does not constitute an offer to sell any class of securities of the Company in any jurisdiction. There is no assurance as to the whether hospitals will purchase at assumed prices. The Company does not forecast what portion of the total addressable market it will be able to capture.
Titan Medical Overview

Designer and developer of a versatile single-port platform for performing abdominal surgeries using robotic technology.

Designed for improved clinical performance, ease-of-use, operating room efficiency and hospital economics.
# Investment Highlights

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<td><strong>Novel Clinical Paradigm</strong></td>
<td>Multi-articulated instrument triangulation through a single incision</td>
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<td><strong>Promising Physician Feedback</strong></td>
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| ✓ Tested by U.S. and EU surgeons from 4 surgical disciplines  
| ✓ 45 preclinical studies prior to 15 GLP studies in 2019  
| ✓ 9 peer-reviewed abstract presentations and 1 published manuscript |
| **Robust IP Portfolio** |  
| ✓ 130+ global patents and applications |
| **Disruptive Business Model** |  
| ✓ Projected savings on capital equipment, service and procedure costs  
| ✓ Recurring revenue model based on consumable components |
| **Pre-commercial Momentum** |  
| ✓ Focused Eastern U.S. launch planned using direct sales strategy |
| **Favorable Market Dynamics** |  
| ✓ Underpenetrated market due to size, complexity and costs associated with existing robotic surgical systems  
| ✓ Applicable to multiple minimally invasive procedures |
Evolution of Surgical Care

- **Open Surgery**
  - Open surgery offers broad application
  - Requires significant hospital stay and recovery time
  - Risk of adverse events

- **Minimally Invasive Surgery**
  - Minimally Invasive Surgery (MIS) has been increasing over the past 25 years
  - Reduced hospitalization time
  - Reduced risk of adverse events
  - Requires highly skilled surgeons

- **Multi-Port Robotic Surgery**
  - Robotic surgery further expands upon the benefits of MIS
  - Technology remains expensive with procedural and operational limitations

- **Single-Port Robotic Surgery**
  - Application of da Vinci® Single-Site in GYN and general surgery showed early promise
  - da Vinci SP® single port robotic system received FDA clearance for urology in 2018, ENT in 2019
  - Titan Medical plans to deliver robotic visualization, precision and dexterity with triangulation through a single incision
Today’s Robotic Surgery Environment

Robotic technology was introduced to mitigate the risks of MIS, reduce variations in procedural efficiency and improve consistency of patient outcomes.

Benefits

- Increased Dexterity
- Improved Visualization (3D)
- Improved Ergonomics

Titan’s single-port robotic system is being developed to offer the benefits of multi-articulated surgery through a single point of entry in order to reduce trauma.
Technology Differentiation
Engineered for Simplicity and Efficiency

**Single-Incision**
With a single incision made around the umbilicus, the result could potentially be near-scarless surgery

**Small Footprint**
Enhanced mobility and ease-of-use may lead to quicker deployment in multiple ORs and higher utilization

**Multi-Articulating**
Reusable multi-articulating instruments are designed for optimal triangulation and economical device performance

**Open Display**
3D high-definition display implemented to provide the balance of surgical immersion and situational awareness in the OR

**Ergonomic Workstation**
Highly ergonomic workstation with natural handle interface designed to enable comfortable surgical posture, even during long procedures

**Purposeful Design**
Designed from the ground up with the intent of improving:
- Clinical Capabilities
- OR Efficiency
- Hospital Economics
System Overview

- Versatile single-port robotic surgery solution
- Smaller OR footprint than multi-port systems
- Designed to overcome multi-port robotic surgery limitations
- Engineered for performance, efficiency and cost-effectiveness
- Expected to provide access to underserved market segments, such as ambulatory surgery centers
Workstation

Open, unobtrusive 3D high-definition display

Multi-configurable elbow rest and foot pedal positioning

Easily maneuverable with swiveling easy-gliding coasters

Integrated software for simulation training (collaboration with Mimic Technologies, Inc.)

Natural multi-articulated handle interface

Ergonomically focused design
Patient Cart

Easy to load and unload instruments through detachable camera insertion tube with integrated 2D high-definition camera

Single-port enables swift multi-quadrant positioning

Minimal cable management in OR

Single-arm configuration with no external moving parts facilitates simple setup and assistant-friendly surgery

Instruments and steerable 3D high-definition camera delivered through camera insertion tube of 25 mm diameter

Compact, rollers enable mobility to maneuver and position
Multi-Articulated Instruments

Variety of multi-use instruments and end effectors for grasping, suturing, cutting and coagulation

- Hunter Style Grasper
  - rotation + open/close movement
  - bipolar compatible

- Distal Section
  - 2 axis multi-articulated movement

- S-Works Section
  - translational movement

- Tip Section
  - Hunter Style Grasper
  - bipolar compatible

- Scissors
  - monopolar compatible

Open architecture for adaptation of future end effectors and functionality

- Dissector
  - bipolar compatible

- Hook
  - monopolar compatible

- Needle Driver

- Traditional Grasper
Titan Medical’s single-port surgical system is designed to provide surgeons with multi-articulated instruments in a triangulated configuration through a single incision.
Intellectual Property

A unique single-port robotic surgery system that is differentiated by its patented multi-articulating instruments, user interface and ergonomic features.

Differentiated and innovative design provides a strong position on freedom to operate.

49 U.S. & International Patents Issued

86 Applications Pending

Areas of Titan Medical's single-port robotic surgical system covered by patents or pending applications:
Proven Feasibility in a Wide Variety of Procedures
45 Procedures Performed to Date (*live porcine unless otherwise indicated, excludes GLP*)

- **GYN and GYN-ONC (8 procedures at Columbia University and Florida Hospital):**
  - Radical Hysterectomy with Bilateral Salpingo Oophorectomy and Bilateral Pelvic / Para-Aortic Node Dissection
  - Simple Hysterectomy with Bilateral Salpingo Oophorectomy and Bilateral Pelvic Node Dissection
  - Simple Hysterectomy with Bilateral Salpingo Oophorectomy

- **Urology (19 procedures at IHU Strasbourg and Florida Hospital):**
  - Hemi-Nephrectomy and Partial Nephrectomy
  - Prostatectomy (Human Cadaver)
  - Pyeloplasty
  - Ureteral-Bladder Anastomosis

- **General Surgery (14 procedures at IHU Strasbourg and Florida Hospital):**
  - Cholecystectomy (1 Human Cadaver, 5 Live Porcine)
  - Nissen Fundoplication (1 Human Cadaver, 3 Live Porcine)
  - Esophagectomy (Human Cadaver)
  - Gastrectomy
  - Splenectomy

- **Colorectal (4 procedures at Florida Hospital):**
  - Colectomy
  - Low Anterior Resection
Peer-reviewed Abstracts to Date

1. Multi-disciplinary applications of a new robotic platform by Barbara Seeliger, MD and Lee Swanstrom, MD (IHU Strasbourg)
   Accepted and presented at Society of American Gastrointestinal and Endoscopic Surgeons Meeting, Seattle, WA, April 2018

2. Single-port prostatectomy using SPORT Surgical System by Eric Barret, MD (IMM, France)
   Accepted and presented at EAU Section of Urology Technology Meeting, Modena, Italy, May 2018

3. Multispecialty single port robotic technology applied in the live animal model: proof of concept by Travis Rogers, MD, Eduardo Parra Davila, MD, Vipul Patel, MD (all from Florida Hospital), Ricardo Estape, MD (South Miami GOG) and Armando Melani, MD (IRCAD Brazil)
   Accepted and presented as a poster at Society of Robotic Surgery Meeting, Stockholm, Sweden, June 2018

4. Feasibility of single-port partial nephrectomy using SPORT surgical system by Eric Barret, MD (IMM, France)
   Accepted and presented as a poster at Society of Robotic Surgery Meeting, Stockholm, Sweden, June 2018

5. Single-port robotic partial and hemi nephrectomy using a novel single port robotic platform by Sebastien Crouzet, MD (University of Lyon, France) and Barbara Seeliger, MD (IHU Strasbourg)
   Accepted and presented at EAU Robotic Urology Section Meeting, Marseille, France, September 2018

6. Reverse Objective Structured Assessment of Technical Skills (Reverse-OSATS) as a means of measuring the capability of the Titan Medical SPORT Surgical System on core surgical principles by Chetna Arora, MD, Arnold P. Advincula, MD (both from Columbia University Medical Center) and William B. Burke, MD (Stony Brook Cancer Center)
   Accepted and presented at Society of European Robotic Gynecologic Surgeons Meeting, Milan, Italy, September 2018

7. Multispecialty single port robotic technology applied in the live animal model: proof of concept by Travis Rogers, MD, Eduardo Parra Davila, MD, Vipul Patel, MD (all from Florida Hospital), Ricardo Estape, MD (South Miami GOG) and Armando Melani, MD (IRCAD Brazil)
   Accepted and presented at World Congress of Endourology Meeting, Paris, France, September 2018

8. Feasibility of single-port partial nephrectomy using SPORT surgical system by Eric Barret, MD (IMM, France)
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   Accepted and presented at American Association of Gynecologic Laparoscopists Global Congress, Las Vegas, NV, November 2018
Published Manuscript

Surgical Endoscopy
Enabling single-site laparoscopy: the SPORT platform

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4 Division of GI/MIS, The Oregon Clinic, Portland, OR, USA
Initial U.S. Target: Benign Gynecologic Surgery

- Rationale:
  - Potential to reduce trauma and scarring, and offers possibility of faster recovery for an engaged patient population
  - Ability to produce positive patient outcomes in relatively low-risk benign procedures
  - Viable alternative to other single-port approaches based on gynecologic surgeon feedback from preclinical studies
  - Attractive procedure volumes performed in outpatient as well as inpatient settings, favoring smaller footprint and lower-cost model
  - Clarity of regulatory pathway
  - With an initial U.S. focus, an ability to efficiently provide comprehensive product training and support to facilitate early product adoption and consistent, successful outcomes
Summary

- Highly versatile, differentiated advanced single-port robotic platform
- Designed for improved clinical performance, ease of use, operating room efficiency and hospital economics
- Potential benefits to patients, surgeons and hospitals versus competitive offerings
- System performance verified in preclinical studies with data presented at clinical conferences
- Experienced management team with a record of success