



# Investor Presentation

TSX: TMD | Nasdaq: TMDI

March 2019

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The Company has filed a registration statement with the United States Securities and Exchange Commission (the "SEC") for an offering of units. Before you invest, you should read the prospectus in that registration statement and other documents the issuer has filed and will file with the SEC for more complete information about the issuer and this offering. You may get these documents for free by visiting EDGAR on the SEC website at [www.sec.gov](http://www.sec.gov). Alternatively, the issuer, any underwriter or any dealer participating in the offering will arrange to send you the prospectus, as supplemented, if you request it by contacting the Chief Financial Officer of the Company at 170 University Avenue, Suite 1000, Toronto, Ontario, M5H 3B3, Telephone: (416) 548-7522.



# 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, 2017 and other information contained in the Company's public filings (which may be viewed at [www.sedar.com](http://www.sedar.com)). 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, the Company cannot assure prospective investors 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. On slide 6, the Company assumes that the information presented in Intuitive Surgical's news release is accurate, but has not independently verified the information.



# Titan Medical Overview

Designer and developer of the **SPORT Surgical System**, a versatile single-port platform that is intended to address a growing multibillion-dollar\* market for abdominal surgeries performed using robotic technology.

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



# Investment Highlights

<b>Novel Clinical Paradigm</b>	✓ Multi-articulated triangulation through a single incision
<b>Promising Physician Feedback</b>	✓ Tested by international surgeons from 4 surgical disciplines ✓ 45 preclinical studies ✓ 9 peer-reviewed abstract presentations and one published manuscript
<b>Robust IP Portfolio</b>	✓ 100+ global patents and applications
<b>Disruptive Business Model</b>	✓ Projected savings on capital equipment, service and procedure costs ✓ Compelling recurring revenue model
<b>Commercial Momentum</b>	✓ U.S. launch planned in 2020 using direct sales strategy
<b>Favorable Market Dynamics</b>	✓ Large, underpenetrated market ✓ 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 a growing trend 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
- Over 1 million\* global robotic procedures were performed in 2018
- **Technology remains expensive with procedural and operational limitations**

## Single-Port Robotic Surgery

- Application of da Vinci® Single-Site in GYN and general surgery shows early promise
- da Vinci SP® single port robotic system received FDA clearance for urology in 2018
- **Robotic visualization, precision and dexterity with triangulation delivered through a single incision – such as the SPORT System – the next frontier.**



# 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

**The SPORT Surgical System offers the benefits of multi-articulated surgery through a single point of entry at a targeted lower cost.**

# Technology Differentiation

Engineered for Simplicity and Efficiency



## Single-Incision

With a single incision made around the umbilicus, the result can be near-scarless surgery



## Small Footprint

Enhanced mobility and ease-of-use leads to quicker deployment in multiple ORs and higher utilization



## Multi-Articulating

Single-use end-effectors on reusable multi-articulating instrument arms result in optimal and economical device performance in every procedure



## Open Display

3D high-definition display offers the perfect balance of surgical immersion and situational awareness in the OR



## Ergonomic Workstation

Highly ergonomic workstation with natural handle interface enables comfortable surgical posture, even during long procedures



## Purposeful Design

Designed from the ground up to improve:

**Clinical Capabilities**

**OR Efficiency**

**Hospital Economics**

# System Overview

- Versatile single-port robotic surgery solution
- Smaller OR footprint than multiport 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 platform on a 4K monitor

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

- Natural multi-articulated handle interface

- Ergonomically focused design

- Multi-configurable elbow rest and foot pedal positioning

- Easily maneuverable with swiveling easy-gliding coasters



# Patient Cart

- Easy to load and unload instruments through a detachable camera insertion tube

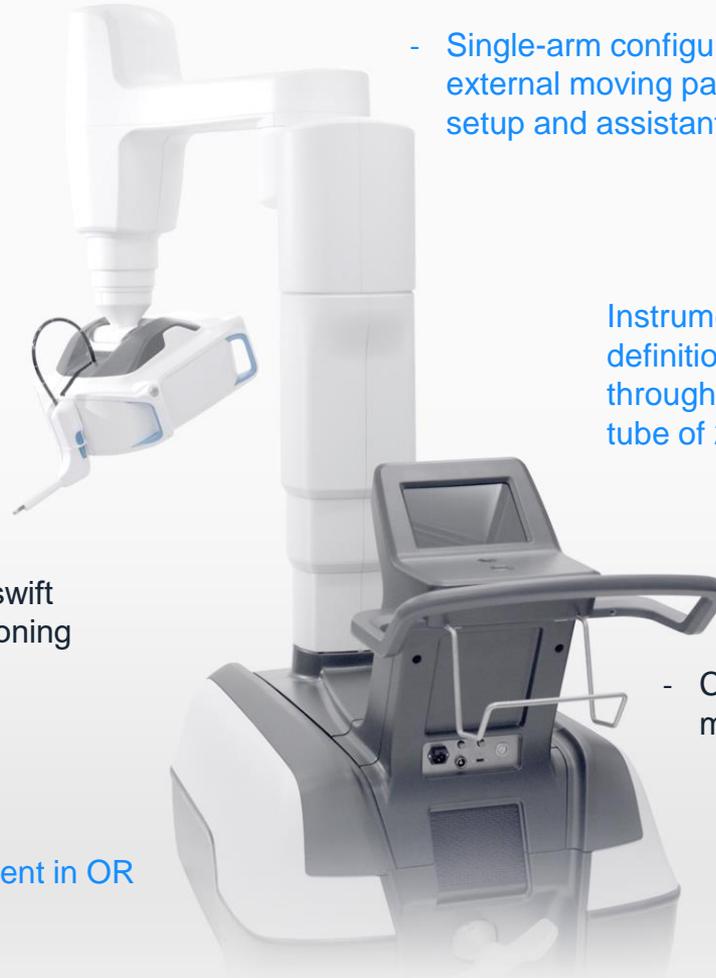
- Single-port enables swift multi-quadrant positioning

- Minimal cable management in OR

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

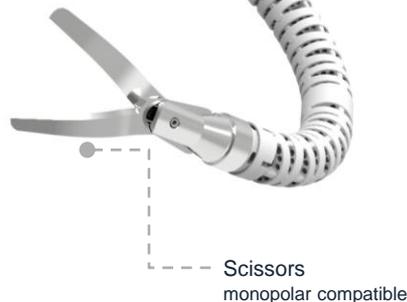
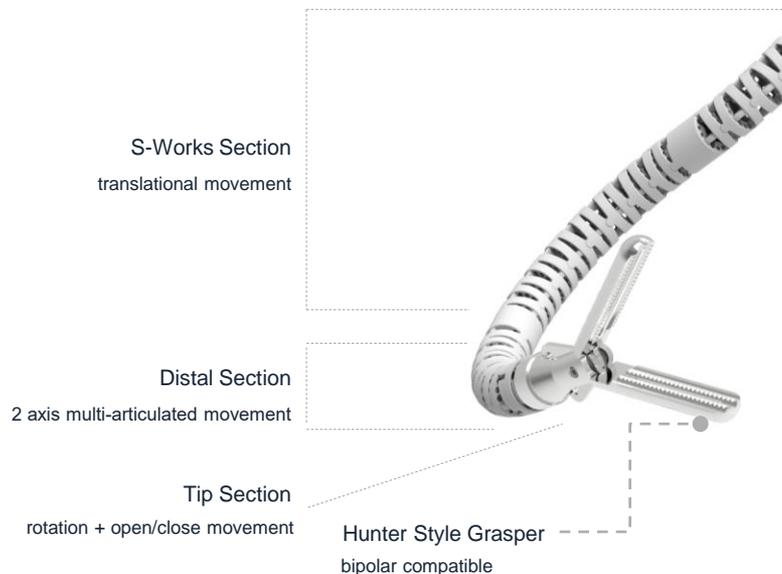
Instruments and 3D high-definition camera delivered through a camera insertion tube of 25 millimeter diameter

- Compact, rollers enable mobility to maneuver and position



# Multi-Articulated Instruments

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



Dissector  
bipolar compatible



Hook  
monopolar compatible



Needle Driver



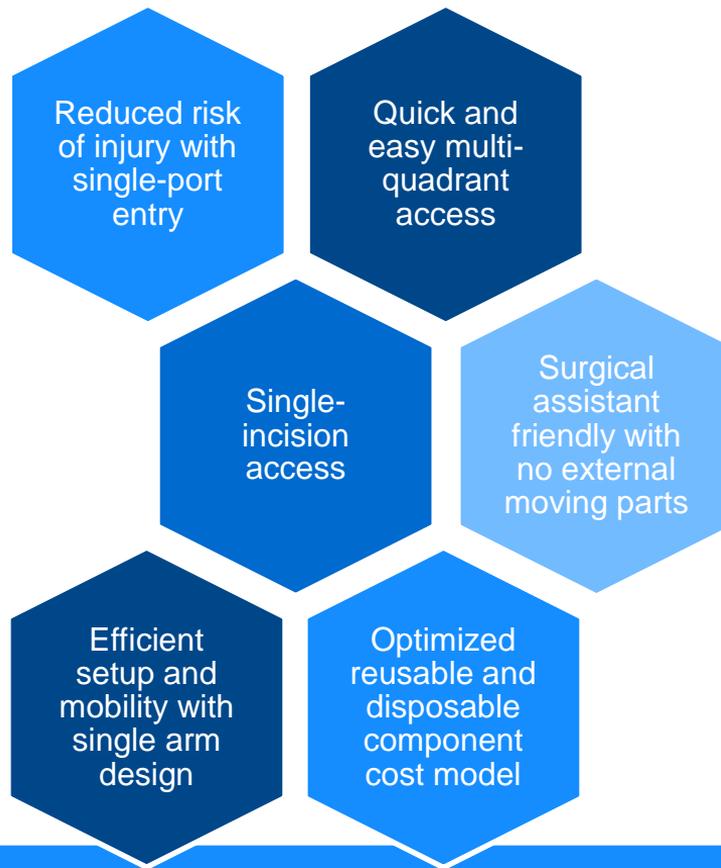
Traditional Grasper



- Open architecture for adaptation of future end effectors and functionality

Single-Incision  
Surgery + Enhanced  
Robotic Technology

# Optimal Patient Care



SPORT Surgical System is designed to provide surgeons with multi-articulated instruments in a triangulated configuration through single-port access to the body.

# Intellectual Property

The SPORT Surgical System is a unique single-incision robotic 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.

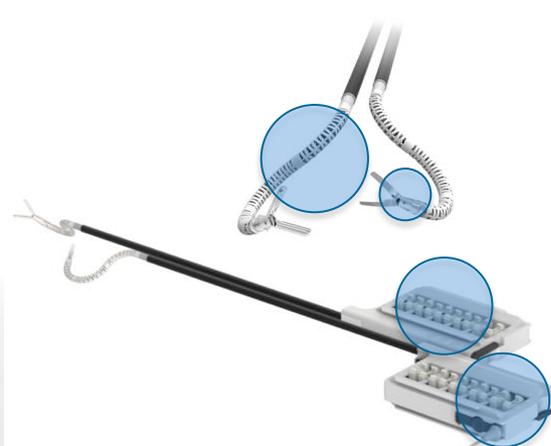
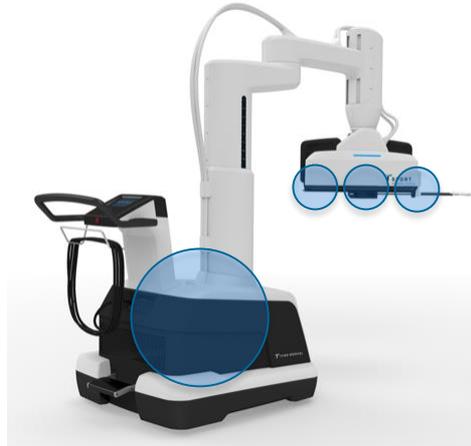
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U.S. & International  
Patents Issued

76

Applications Pending

Areas of the SPORT Surgical System covered by patents or pending applications:



# Proven Feasibility in Wide Variety of Procedures

45 Procedures Performed to Date (*live porcine unless otherwise indicated*)

- 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

SPORT single-port  
robotic surgery is  
feasible &  
repeatable.

- 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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- 9. 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 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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# Commercial Timeline

	2018	2019	2020
Established US & EU Centers of Excellence	✓		
Proven Feasibility	✓		
Integrated Simulation Training	✓		
Engineering Confidence Build	✓		
Design Freeze		H1	
GLP Animal Studies		H1	
IDE Approval		H2	
Submit 510(K) Application		H2	
Submit Technical File for CE Mark		H2	
Anticipated Regulatory Clearance			●
Projected Initial Launch			●





# Summary

- Targeting growing multibillion-dollar global robotic surgery market
- Highly versatile, differentiated advanced single-port 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
- Attractive capital and recurring revenue streams expected
- Experienced management team with record of success



Thank You

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