Taking Down Goliath Part II: Why Titan Medical Represents A Formidable Contender In The Surgical Robot Market

Feb. 13, 2014 11:24 AM ET
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(Editors' Note: This article covers a stock trading at less than $1 per share and/or with less than a $100 million market cap. Please be aware of the risks associated with these stocks.)

Executive Summary:

- Wall Street has failed to recognize the disruptive potential (and value) behind Titan Medical's robotic SPORT Surgical System.
- Titan Medical is targeting an expansive market that has yet to be significantly penetrated by competitor Intuitive Surgical.
- Titan Medical has a number of value creating catalysts in 2015.
- A recent secondary offering provides an appealing entry point for long-term investors.

In part one of this series, I highlighted the woes of Intuitive Surgical's (ISRG) da Vinci System, the benefits of TransEnterix's (OTCQB:TRXC) SurgiBot, and laid out my bullish thesis behind the latter. For such an expansive and untapped market, there are bound to be other companies working to step in and grab a piece of the pie. Canadian based firm Titan Medical (OTCQX:TITXF) is one of those companies.

Titan Medical is developing the SPORT Surgical System, a true robotic platform that utilizes a single incision to complete a number of surgical procedures. The SPORT (Single Port Orifice Robotic Technology) Surgical System has been in development since spring of 2012. The company has an impressive and extensive list of medical professionals serving as advisors to the development of the SPORT Surgical System. As Titan Medical nears commercialization at the end of 2015, and begins to market its product that addresses the most pressing drawbacks of the da Vinci System including cost, size and mobility, more investors will begin to take notice of this company and its future prospects. This should warrant a higher valuation than Titan Medical's current market cap of approximately $100 million, prior to the February 19th close of its current capital raise.

The Problem

Intuitive Surgical has dominated the surgical robotic market since 2000 when it introduced its revolutionary da Vinci System. The surgical robot is great at performing a number of different procedures, and to date, nearly 3,000 systems have been sold worldwide with more than 1.5 million procedures being completed on the device. However, while the da Vinci System is a big step up from traditional and rigid laparoscopy surgery, the device has a number of technical problems that Titan Medical is looking to address with its own product.

The da Vinci System is capital-intensive. The system has a price tag of $1.5 million to $2.3 million depending on the configuration. In addition, the hospital is required to pay an annual service contract that can reach up to $175,000 for the da Vinci Si (but at 10% of the capital cost it could be as high as $230,000), and replacement instruments cost on average $2,000; but costs can reach as high as $3,000 per procedure, depending on the complexity of the surgery being performed. Because of these high prices, only about 33% of U.S. hospitals have purchased a robotic surgical system, leaving a massive opportunity for competitors on which to capitalize.

(click to enlarge)
On top of its high price tag, the da Vinci System takes up a lot of space, generally an entire operating room. The system once installed cannot be moved from room to room. The large arms of the machine also limit access for bedside assistants. The da Vinci System makes multiple incisions, which create more scarring and result in a longer recovery process for the patient when compared to the SPORT Surgical System. The da Vinci does offer a single-port (one incision) version of its robotic platform, but the functionality of the device is limited due to the cross orientation of tools that occurs at the operating site and the lack of "wrist" control. Moreover, the single-port system must be attached to the multi-port system unlike Titan's single-port system, which is a stand-alone system. The da Vinci System also has zero tactile feedback, which increases the learning curve for surgeons and can (and has) lead to a number of complications during an operation. Titan Medical has an answer to all of these issues.

The Solution

Titan Medical's SPORT System is a dream come true for hospitals, surgeons, and patients alike. Titan's management describes the advantages of the SPORT Surgical System as benefits to the CFO concerns: Clinical, Financial, and Operational. The SPORT Surgical System's value proposition would be too long to include in sentence form. A list will suffice.

- Small footprint (mobility)
- Lower cost (<$1 million)
- Utilizes minimally invasive single incision about the size of a quarter (25mm)
- Improved flexibility, dexterity, and strength
- Internal triangulation achieved
- Haptic tactile feedback for surgeons
- Less blood loss, virtually scarless, and short recovery time for patients (results in reduced costs for hospitals)
- Reduced complications and infections
- High Definition 3D Vision
- Swap of instruments at operating site
- Minimal learning curve (Simulation tools aid in the training process)

(source: Titan Medical corporate presentation)

The SPORT Surgical System's affordability, smaller footprint, and potential improved outcomes for the hospital, surgeon, and patient will be a threat to Intuitive Surgical and their install base as Titan begins to roll out its product. The SPORT Surgical System is a highly anticipated product in the medical community. Conversations with surgeons and former Intuitive Surgical employees indicate that Titan's SPORT Surgical System should be well received once it's launched. Anecdotes highlight the fact that numerous surgeons, hospital directors, and Intuitive Surgical employees are buying stock in Titan Medical.
The Opportunity

Titan Medical is targeting a massive market, and hoping to exploit an untapped base of customers thanks to its smaller footprint and lower cost. There are more than 3,000 U.S. hospitals that have yet to purchase a surgical robot, along with more than 5,000 private outpatient surgical centers. This number balloons higher when you consider the worldwide market Titan plans on entering in 2015. A majority of the medical facilities that have yet to purchase a surgical robotic system are small to medium sized, and, therefore, do not have enough space or funding to accommodate the da Vinci System, which is why the SPORT Surgical System will be so attractive to this target market. The mobility and functionality of the SPORT will also appeal to hospitals that have already purchased a da Vinci System.

With the surgical robotic market expected to grow to upwards of $20 billion by 2020, Titan Medical is positioned in a rapidly expanding market that is just beginning to open up to new competitors as years of development and advancements in technology come into fruition.

Titan Medical's business model will be similar to Intuitive Surgical's. The company will generate revenues from the initial sale of the SPORT Surgical System, and from recurring revenues from annual service contracts and disposable instruments. This model allows for continuous revenue long after a system has been sold, and a single customer can generate well over $150,000 in annual revenue between both the disposable instruments (~$1,000 per instrument), and the annual service contracts.

The company has clearly laid out its milestone timeline for the SPORT System, with a majority of catalyst driven events set to take place in 2015, including the initiation of European approval and commercialization, beginning the FDA 510(k) clearance process, and the shifting of the production of the SPORT Surgical System to a high volume manufacturing partner.

(click to enlarge)
Titan Medical is primed to greatly appreciate in value as it commences a number of initiatives in 2015, which will prepare the company for an official launch of its revolutionary surgical system.

The Company and Management

Titan Medical is a company with an innovative product, an impressive number of patents, knowledgeable management, and strong relationships with stakeholders including hospitals and surgeons. The company has already partnered, by way of Memorandums of Understanding, with prominent hospitals for clinical test sites, such as Children's Hospital Boston, Rochester General Hospital, the University of Florida, the Ohio State University, and Apollo Hospitals. Apollo is a major hospital chain that operates 37 hospitals across India, and plans to have more than 50 hospitals up and running by 2015. The partnership with Apollo is a game changer, and the relationship between the two could easily generate tens of millions of dollars in revenue down the road for Titan Medical.

The company holds 7 US patents, 12 patent applications, and has licensed 4 patent-pending technologies, including a surgical stapler from the Mayo Foundation. These patents will protect the core technologies of the SPORT Surgical System, and help solidify the company's position as an emerging leader in the surgical robotic market.

Between the management team running Titan Medical, and the scientific board advising it, the company combined has more than 100 years worth of experience in the health care and surgical fields. The list is impressive and extensive. Here are some highlights.

CEO John Hargrove has worked in the health care industry for more than 30 years, serving executive roles at Johnson and Johnson Health Care Systems, Ethicon, and Ohmeda Inc. President Reiza Rayman, MD, PhD, has been conducting clinical research in robotic surgery since 1998. Rayman obtained a $30 million grant for robotic surgery, has authored more than 20 publications on the subject, and participated in the world's first endoscopic robotic coronary artery bypass. CFO Stephen Randall has more than 25 years of experience in executive finance roles, serving as an auditor, accountant, and CFO for several public and private companies. The VP of Business Development, Joe Talarico, has held several positions at Intuitive Surgical, including Clinical Sales Manager, Area
Sales Manager, and Area Training Director. Dr. John Valvo serves as Titan Medical's Vice President of Medical Affairs and has performed over 600 robotic surgical procedures. Dr. Valvo is the founder of the robotic program and is the Executive Director of Robotic and Minimally Invasive Surgery at Rochester General Hospital.

Titan Medical's board of medical advisors include more than ten doctors who have been immersed in the surgical robot field for years, with some having completed several hundred robotic surgery procedures. Advisors include Dr. Dennis Fowler who is co-inventor of the SPORT System, Douglas Boyd, who completed the world's first robotic beating heart cardiac bypass surgery, and Hiep Nuyen, who is an associate professor in surgery at Harvard Medical School and director of the Robotic Surgery, Research and Training Center at Children's Hospital Boston, and several other highly seasoned medical professionals.

The team behind Titan Medical is more than capable of bringing a revolutionary surgical platform to the market. The SPORT Surgical System is beginning to approach its worldwide debut and is on track to provide a compelling number of benefits to hospitals, surgeons, and patients, as well as create significant value for all long-term shareholders.

**Risks and a Conservative Valuation**

Like many small cap stocks, Titan may be subject to a number of risks including extreme price swings, future dilution and aggressive competition. Titan Medical's product is still in the development stage and has yet to generate revenues. Titan Medical recently announced a share offering at a strike price of $1.40 (~$1.27 in U.S. currency), which should raise approximately $11 million that will continue to fund the development of the SPORT Surgical System. After this financing is completed, the company will still require an additional $24 million in funding to launch the SPORT Surgical System, and this will most likely be conducted in another secondary offering. Therefore, investors should understand that further dilution is inevitable. With a monthly burn rate of approximately $600,000, Titan Medical should not require another financing for ten months, and in between then and now, a number of positive developments can potentially propel the company higher.

This is a speculative long-term investment and the important milestones that will create significant value for shareholders do not occur for another year, so patience is required. Investors must understand that Titan Medical does not have guaranteed approval for its SPORT System; therefore the risk that the SPORT Surgical System does not receive clearance from the FDA and other regulators exists.

Even though Titan Medical is targeting an expansive market that hasn't been fully tapped by Intuitive Surgical, it will still face competition from the likes of other developmental surgical robot companies. TransEnterix will most likely be Titan Medical's main competitor from the get-go (besides the da Vinci Si), and because TransEnterix will have a head start in the US market due to its expected timeline of milestone events, Titan Medical will have some ground to make up upon the U.S. launch of its system. At the same time, it should be noted that Titan's SPORT Surgical System offers more sophisticated software and imaging systems than TransEnterix's Surgibot. Moreover, because this market is massive, I don't believe this competition will create negative pressure for Titan Medical, and the company's developed relationships with both foreign and domestic hospitals bode well for the company's future potential. There is room for more than one player in the surgical robotic market, and Titan Medical is well positioned in an industry that is growing at an accelerated rate.

Let's conservatively assume that Titan Medical needs an additional $24 million to support the partnership with its high volume producer and to launch the SPORT System worldwide, and will solely rely on secondary offerings for the funds at an average strike price of $1.25. This would increase Titan Medical's shares outstanding to approximately 95 million. Focusing solely on the approximately 3,350 U.S. hospitals that have no robotic surgical system, a meager 5% market share grab would imply a share price of approximately $3.17, utilizing the industry average P/S ratio (3.0) and assuming revenues generated from new SPORT Surgical System customers reach $600,000 in the first year of purchase. This would represent a price increase of more than 150% from Tuesday's close.

If we include the 5,000 private surgical centers sprawled across America, or potential clients in Europe, Asia, or India, the opportunity balloons even higher, and an estimated valuation at this point would be foolish. There is strong demand for the type of product Titan Medical is developing, and Titan's planned partnership with a high volume producer will allow the company to quickly scale out and supply the growing demand for a cheaper, smaller, and enhanced surgical robotic platform.

**Conclusion**

Units of Titan Medical were offered at $1.40 CAD ($1.27 USD) in the recent equity offering, representing a discount of 20% from the close prior to the announcement. Unlike most other secondary offerings where the company continues to sell off, shares of Titan Medical have held its ground and are still trading near the offering price. This is an
appealing entry point for any long-term investor.

(click to enlarge)

Technically speaking, the uptrend is still intact for Titan, with shares comfortably hovering above the 50-day MA. Note the golden cross that occurred around December 9th. The MACD indicator signals that shares should consolidate sideways and put in a new base for a number of weeks, similar to the $0.90 base in December.

The strong fundamentals and improving technicals behind Titan Medical should appeal to any long-term investor who wants to gain exposure to the health care industry, and any Intuitive Surgical investor who wants to hedge their investment.

Additional information was sourced from Titan Medical's investor presentation, company filings, and this First Analysis analyst report.