

TRANSENERIX INC.
Form 424B5
August 31, 2017
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Registration Number: 333-217865

PROSPECTUS SUPPLEMENT

(To Prospectus dated May 19, 2017)

TransEnterix, Inc.

Up to \$50,000,000

Common Stock

We have entered into an At-the-Market Equity Offering Sales Agreement, or Sales Agreement, with Stifel, Nicolaus & Company, Incorporated, or Stifel, to offer and sell up to \$50,000,000 of our common stock, \$0.001 par value per share, offered by this prospectus supplement and the accompanying prospectus.

In accordance with the terms of the Sales Agreement, we may offer and sell shares of our common stock at any time and from time to time through Stifel as our sales agent. Sales of the common stock, if any, will be made at market prices by any method that is deemed to be an at the market offering as defined in Rule 415 under the Securities Act of 1933, as amended, or the Securities Act. Stifel may also sell our common stock in negotiated transactions with our prior approval.

The aggregate compensation payable to Stifel shall be equal to 3.0% of the gross sales price of the shares sold through Stifel pursuant to the Sales Agreement. In connection with the sale of the common stock on our behalf, Stifel will be deemed to be an underwriter within the meaning of the Securities Act and the compensation of Stifel will be deemed to be underwriting commissions or discounts.

Subject to the terms and conditions of the Sales Agreement, Stifel will use its commercially reasonable efforts consistent with its normal trading and sales practices to sell on our behalf any shares to be offered by us under the Sales Agreement. There is no arrangement for funds to be received in any escrow, trust or similar arrangement.

Our common stock is listed on the NYSE American under the symbol TRXC. On August 28, 2017, the last reported sale price of our common stock on the NYSE American was \$0.93 per share.

Investing in our common stock involves risks. You should review carefully the risks and uncertainties described under the heading Risk Factors on page S-6 of this prospectus supplement and under similar headings in the other documents that are incorporated by reference in this prospectus supplement and the accompanying prospectus.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of this prospectus supplement or the accompanying prospectus. Any representation to the contrary is a criminal offense.

Stifel

The date of this prospectus supplement is August 31, 2017.

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ABOUT THIS PROSPECTUS SUPPLEMENT

This prospectus supplement and the accompanying prospectus, dated May 19, 2017, are part of a shelf registration statement on Form S-3 (File No. 333-217865). This document is in two parts. The first part is this prospectus supplement, which describes the terms of this offering of shares of our common stock and also adds to and updates information contained in the accompanying prospectus and the documents incorporated by reference into this prospectus supplement and the accompanying prospectus. The second part, the accompanying prospectus, including the documents incorporated by reference, provides more general information, some of which may not apply to this offering. Generally, when we refer to this prospectus, we are referring to both parts of this document combined. To the extent there is a conflict between the information contained in this prospectus supplement, on the one hand, and the information contained in the accompanying prospectus or in any document incorporated by reference that was filed with the Securities and Exchange Commission, or SEC, before the date of this prospectus supplement, on the other hand, you should rely on the information in this prospectus supplement. If any statement in one of these documents is inconsistent with a statement in another document having a later date, the statement in the document having the later date modifies or supersedes the earlier statement.

You should rely only on the information contained in, or incorporated by reference into, this prospectus supplement and the accompanying prospectus. We have not, and Stifel has not, authorized anyone to provide you with different or additional information. You should assume that the information in this prospectus supplement and the accompanying prospectus is accurate only as of the date on the front of the respective document and that any information that we have incorporated by reference is accurate only as of the date of the document incorporated by reference, regardless of the time of delivery of this prospectus supplement or the accompanying prospectus or the time of any sale of a security. Our business, financial condition, results of operations and prospects may have changed since those dates.

As used in this prospectus supplement, the terms TransEnterix, the Company, we, us, and ours refer to TransEnterix Inc.

This prospectus supplement, the accompanying prospectus and the information incorporated by reference herein and therein include trademarks, service marks and trade names owned by us or other companies. All trademarks, service marks and trade names included or incorporated by reference into this prospectus supplement or the accompanying prospectus are the property of their respective owners.

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PROSPECTUS SUPPLEMENT SUMMARY

This summary highlights certain information about us, this offering and information appearing elsewhere in this prospectus supplement and in the accompanying prospectus and in the documents we incorporate by reference. This summary is not complete and does not contain all of the information that you should consider before investing in shares of our common stock. The following summary is qualified in its entirety by, and should be read in conjunction with, the more detailed information appearing elsewhere in this prospectus supplement, the accompanying prospectus and the documents incorporated by reference herein and therein. Before you decide to invest in shares of our common stock, to fully understand this offering and its consequences to you, you should read the entire prospectus supplement and the accompanying prospectus carefully, including the risk factors beginning on page S-6 of this prospectus supplement and the documents incorporated by reference herein and therein.

TransEnterix, Inc.

Overview

We are a medical device company that is pioneering the use of robotics to improve minimally invasive surgery by addressing the clinical challenges associated with current laparoscopic and robotic options. We are focused on the commercialization and further development of our Senhance Surgical Robotic System (formerly known as the ALF-X[®] Surgical Robotic System), or the Senhance System, a multi-port robotic system that brings the advantages of robotic surgery to patients while enabling surgeons with innovative technology. The Senhance System has been granted a CE Mark in Europe for laparoscopic abdominal and pelvic surgery, as well as limited thoracic operations excluding cardiac and vascular surgery, but is not available for sale in the U.S. We have also developed the SurgiBot System, or the SurgiBot System, a single-port, robotically enhanced laparoscopic surgical platform. The SurgiBot System is not available for sale in any market.

The Senhance System is a multi-port robotic surgery system which allows multiple robotic arms to control instruments and a camera. The system features advanced technology to enable surgeons with haptic feedback and the ability to move the camera via eye movement. The system replicates laparoscopic motion that is familiar to experienced surgeons, and integrates three-dimensional high definition, 3DHD, vision technology. The Senhance System also offers responsible economics to hospitals by offering robotic technology with reusable instruments thereby reducing additional costs per surgery when compared to other robotic solutions. In April 2017, the Company submitted a 510(k) application to the Food and Drug Administration, or FDA, for the Senhance System. We are in the process of preparing our response to the additional information request from the FDA received in June 2017. We anticipate filing our response to the FDA early in the fourth quarter of 2017, and continue to believe that we will achieve clearance for the Senhance System by the end of 2017.

We believe that future outcomes of minimally invasive surgery will be enhanced through our combination of more advanced tools and robotic functionality which are designed to: (i) empower surgeons with improved precision, dexterity and visualization; (ii) improve patient satisfaction and enable a desirable post-operative recovery; and (iii) provide a cost-effective robotic system, compared to existing alternatives today, for a potentially wide range of clinical applications. Our strategy is to focus on the development and commercialization of the Senhance System.

Our Market Opportunity

Over the past two decades, laparoscopic surgery has emerged as a minimally invasive alternative to open surgery. In laparoscopic surgery, multiple incisions are spread over the body, carbon dioxide gas insufflation is used to create room in the body cavity, and long rigid instruments are introduced through ports placed in the incisions to perform

surgical tasks. Millions of laparoscopic surgical procedures across a broad range of clinical applications are now performed each year worldwide, though many surgeries are still performed in an open fashion.

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While laparoscopy has improved the invasive nature of many previously open procedures, it still has many limitations. Traditional, or rigid, laparoscopy still requires multiple incisions to achieve the visualization and instrument triangulation required to perform successful surgery. Rigid laparoscopy also creates physical challenges by forcing the surgeon's hands and arms into awkward angles, requiring the surgeon to hold instruments in fixed positions for long periods of time, and requiring an assistant to stabilize and move a laparoscopic camera. Another challenge associated with rigid laparoscopic surgery is the creation of a cumbersome and potentially tissue-damaging fulcrum at the patient's abdominal wall where instruments are manipulated. Nearly all laparoscopic instruments are rigid instruments that lack the internal articulation required to enhance dexterity in complex tasks. Most laparoscopic surgeries are performed with two dimensional visualization of the operative field, making depth perception difficult. Despite such limitations, traditional laparoscopy remains the prevalent technique in minimally invasive surgery techniques. We believe that robotic devices that replicate laparoscopic motion are more comfortable for surgeons to adopt, thereby increasing the opportunity to enhance traditional surgical methods with robotics. Our Senhance System mimics laparoscopic surgery.

Robotic and computer controlled assistance have developed as technologies that offer the potential to improve upon many aspects of the laparoscopic surgical experience. Hundreds of thousands of robotic-assisted surgical procedures are now performed each year worldwide, but they still represent a small fraction of the total laparoscopic procedures performed. While initial widespread adoption of robotic-assisted surgery was focused on urologic and gynecologic procedures that were primarily performed in an open fashion prior to robotics, recently developed robotic approaches have been applied to many other clinical applications, particularly in general surgery. Despite recent advances, we believe there remain many limitations created by competing robotic-assisted surgery systems used in connection with laparoscopic surgeries. We are addressing the challenges in laparoscopy and robotic-assisted surgery with innovative products and product candidates that leverage the advantages of both approaches to minimally invasive surgery.

The Senhance System

The Senhance System is a multi-port robotic surgery system that allows up to four robotic arms to control instruments and a camera. The system builds on the success of laparoscopy by enhancing the traditional features that surgeons have come to expect from existing products and by addressing some of the trade-offs associated with using competing robotic offerings versus traditional instruments for laparoscopic procedures. The Senhance System also offers responsible economics to hospitals by offering reusable instruments that reduce additional costs per surgery when compared to laparoscopy. The Senhance System has been granted a CE Mark in Europe for use in abdominal and pelvic surgery; it is not available for sale in the U.S.

Key features of the Senhance System are:

Haptic Feedback: The Senhance System's force feedback provides the surgeon with the ability to feel the tissue response during a procedure;

Enhanced Vision: The Senhance System features 3DHD vision technology and gives the surgeon the ability to move the camera via eye movement so that the camera is centered in the surgeon's field of vision;

Laparoscopic Motion: The Senhance System utilizes laparoscopic motion that is similar to the motion used during traditional laparoscopic surgeries;

View of the Sterile Field: The Senhance System offers the surgeon an open view of the operating room and sterile field from the console; and

Enables use of standard trocars: The Senhance System allows for standard laparoscopic trocars to be used and does not require that robotic arms be docked directly to the patient.

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Our Strategy

Our current strategy is to focus our resources on the commercialization of and regulatory clearance for the Senhance System.

We believe that:

there are a number of hospitals and an increasing number of ambulatory surgery centers in the U.S. and internationally that could benefit from the addition of robotic-assisted minimally invasive surgery and, with the Senhance System, lower operational costs;

with the Senhance System, surgeons can benefit from the haptic feedback, enhanced 3DHD vision and open architecture consistent with current laparoscopic surgery procedures; and

patients will continue to seek a minimally invasive option, offering minimal scarring and fewer incisions, for many common general abdominal and gynecologic surgeries, which desires are addressed by the Senhance System.

Recent Developments

Debt Refinancing

On May 10, 2017, we and our domestic subsidiaries, as co-borrowers, entered into a Loan and Security Agreement, or the Innovatus Loan Agreement, with Innovatus Life Sciences Lending Fund I, LP, as Lender and Collateral Agent, or the Lender. Under the Innovatus Loan Agreement, the Lender has agreed to make certain term loans in the aggregate principal amount of up to \$17,000,000. Funding of the first \$14,000,000 tranche occurred on May 10, 2017. We will be eligible to draw on the second tranche of \$3,000,000 upon achievement of certain milestones, including Senhance Clearance (as defined below). So long as we meet each Interest-Only Milestone (as defined below), we are entitled to make interest-only payments for up to twenty-four months. At the end of the interest-only period, we will be required to repay the term loans over a two-year period, based on a twenty-four month amortization schedule, with a final maturity date occurring on the fourth anniversary of the initial funding date. However, the interest-only period will end if we fail to meet any Interest-Only Milestone. Commencing on the first day of the month following such failure to achieve an Interest-Only Milestone, we will be required to repay the term loans over a two year period, based on a twenty-four (24) month amortization schedule. The Interest-Only Milestones require us to (i) achieve certain twelve month revenue targets, measured quarterly, commencing with the quarter ending March 31, 2018, (ii) meet a minimum capital raising threshold through the sale and issuance of equity securities during the period from April 10, 2017 through May 31, 2018 and (iii) obtain clearance for commercialization of the Senhance System by the U.S. Food and Drug Administration, or Senhance Clearance, by May 30, 2018, each such milestone is referred to as an Interest-Only Milestone. Capital raised in this offering will be applied to the minimum capital raising threshold. In connection with its entrance into the Innovatus Loan Agreement, we repaid our then-existing credit facility with Silicon Valley Bank and Oxford Finance LLC.

Public Offering of Units

On April 28, 2017, we entered into an underwriting agreement with Stifel relating to an underwritten public offering of an aggregate of 24,900,000 Units, each consisting of one share of our Common Stock, a Series A Warrant to purchase one share of Common Stock and a Series B Warrant to purchase 0.75 shares of Common Stock at an offering price to the public of \$1.00 per Unit. Certain of our officers, directors and existing stockholders purchased approximately \$2.5 million of Units in the public offering. The closing of the public offering occurred on May 3, 2017.

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Each Series A Warrant has an initial exercise price of \$1.00 per share and may be exercised at any time beginning on the date of issuance, and from time to time thereafter, through and including the first anniversary of the issuance date, unless terminated earlier as provided in the Series A Warrant. In the event the FDA provides clearance with respect to the Company's Senhance System 510(k) application, the holders of Series A Warrants will have 10 business days after written notice to exercise, in whole or in part, their Series A Warrants. Any Series A Warrants that remain unexercised after such 10 business day period will expire.

Each Series B Warrant has an initial exercise price of \$1.00 per share and may be exercised at any time beginning on the date of issuance and from time to time thereafter through and including the fifth anniversary of the issuance date.

The exercise prices and the number of shares issuable upon exercise of each of the Warrants are subject to adjustment upon the occurrence of certain events, including, but not limited to, stock splits or dividends, business combinations, sale of assets, similar recapitalization transactions, or other similar transactions. The exercise prices of each of the Warrants are subject to adjustment in the event that we issue or are deemed to issue, shares of Common Stock for less than the then applicable exercise prices of each of the Warrants. The exercisability of the Warrants may be limited if, upon exercise, the holder or any of its affiliates would beneficially own more than 4.99% of the Common Stock. If, at any time Warrants are outstanding, any fundamental transaction occurs, as described in the Warrants and generally including any consolidation or merger into another corporation, the consummation of a transaction whereby another entity acquires more than 50% of our outstanding voting stock, or the sale of all or substantially all of its assets, the successor entity must assume in writing all of the obligations to the Warrant holders. Additionally, in the event of a fundamental transaction, each Warrant holder will have the right to require us, or our successor, to repurchase the Warrants for an amount of cash equal to the Black-Scholes value of the remaining unexercised portion of such Warrants.

Corporate Information

We were organized as a Delaware corporation on August 19, 1988. Our principal executive offices are located at 635 Davis Drive, Suite 300, Morrisville, NC 27560. Our phone number is (919) 765-8400 and our Internet address is www.transenterix.com. In December 2013, we changed our name to TransEnterix, Inc. from SafeStitch Medical, Inc. The information on our website or any other website is not incorporated by reference in this prospectus supplement and does not constitute a part of this prospectus supplement.

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THE OFFERING

Common stock offered by us:	Up to an aggregate of \$50,000,000 of shares of our common stock pursuant to the Sales Agreement with Stifel, Nicolaus & Company, Incorporated as sales agent. See Plan of Distribution beginning on page S-13 of this prospectus supplement.
Common stock to be outstanding after this offering:	Up to 198,536,356 shares (as more fully described in the notes following this table), assuming sales of 50,000,000 shares of our common stock in this offering at an offering price of \$1.00 per share. The actual number of shares issued will vary depending on the sales price under this offering.
Manner of offering:	At the market offering made from time to time through Stifel. See Plan of Distribution beginning on page S-13 of this prospectus supplement.
Use of Proceeds:	We currently intend to use the net proceeds of this offering for general corporate purposes, including working capital, product development and capital expenditures. See Use of Proceeds on page S-10 of this prospectus supplement.
Risk Factors:	Investing in our common stock involves a high degree of risk. See Risk Factors beginning on page S-6 of this prospectus supplement and the other information included or incorporated by reference in this prospectus supplement and the accompanying prospectus.
NYSE American symbol:	TRXC.
The number of shares of common stock to be outstanding immediately after this offering is based on 148,536,356 shares of our common stock outstanding as of June 30, 2017, and excludes, as of such date:	

16,220,452 shares of common stock issuable upon the exercise of outstanding options granted under our stock option plans at a weighted average exercise price of \$2.30 per share;

46,246,368 shares of common stock issuable upon the exercise of outstanding warrants at a weighted average exercise price of \$1.02 per share;

1,255,710 shares of common stock issuable upon vesting of outstanding restricted stock units; and

9,853,446 shares of common stock available for future issuance under our stock option plans.

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RISK FACTORS

Investing in our common stock involves a high degree of risk. For a discussion of the factors you should carefully consider before deciding to purchase any of our securities, please review Part II, Item 1.A Risk Factors in our Quarterly Report on Form 10-Q for the period ended June 30, 2017, filed with the U.S. Securities and Exchange Commission, or SEC, on August 2, 2017 which is incorporated by reference in this prospectus supplement and the accompanying prospectus in its entirety, together with the other information contained in this prospectus supplement, the accompanying prospectus and the documents we have filed or will subsequently file that are incorporated by reference. The risks and uncertainties described in the documents incorporated by reference are not the only risks and uncertainties we face. Additional risks and uncertainties not presently known to us or that we currently deem immaterial may also impair our business operations. If any of those risks actually occurs, our business, financial condition and results of operations would suffer. In that event, the market price of our common stock could decline, and you may lose all or part of your investment in our common stock.

Management will have broad discretion as to the use of the net proceeds from this offering, and we may not use the proceeds effectively.

Our management will have broad discretion as to the application of the net proceeds and could use them for purposes other than those contemplated at the time of this offering. Our stockholders may not agree with the manner in which our management chooses to allocate and spend the net proceeds. Moreover, our management may use the net proceeds for corporate purposes that may not increase our results of operations or the market value of our common stock. Our failure to apply these funds effectively could have a material adverse effect on our business, delay the development and approval of our products and cause the price of our common stock to decline.

We re-financed our debt in May 2017, and have a two-year period of interest-only payments. We need to meet new milestone events in order to maintain the repayment schedule at interest-only payments for two years.

On May 10, 2017, we and our domestic subsidiaries, as co-borrowers, entered into the Innovatus Loan Agreement with Innovatus Life Sciences Lending Fund I, LP, as Lender and Collateral Agent Under the Innovatus Loan Agreement, the Lender agreed to make certain term loans in the aggregate principal amount of up to \$17,000,000. Funding of the first \$14,000,000 tranche occurred on May 10, 2017. We will be eligible to draw on the second tranche of \$3,000,000 upon achievement of certain milestones, including Senhance Clearance. So long as we meet each Interest-Only Milestone, we are entitled to make interest-only payments for up to twenty-four months. However, the interest-only period will end if we fail to meet any Interest-Only Milestone. Commencing on the first day of the month following such failure to achieve an Interest-Only Milestone, we will be required to repay the term loans over a two year period, based on a twenty-four (24) month amortization schedule. The Interest-Only Milestones require us to (i) achieve certain twelve month revenue targets, measured quarterly, commencing with quarter ending March 31, 2018, (ii) meet a minimum capital raising threshold through the sale and issuance of equity securities during the period from April 10, 2017 through May 31, 2018 and (iii) obtain the Senhance Clearance by May 30, 2018. We cannot assure you that we will be able to meet each of the Interest-Only Milestones. If we fail to meet one of the Interest-Only Milestones, we will need to begin repaying the principal of the term loans, which could have an adverse effect on our financial condition.

In May 2017, we issued Series A Warrants to purchase 24,900,000 shares of common stock and Series B Warrants to purchase 18,675,000 shares of common stock, which must be revalued each reporting period. In addition, we owe contingent consideration to Sofar under the Senhance Acquisition agreement that is also revalued each reporting period. Such assessments involve the use of estimates that could later be found to differ materially from actual results, which could have an adverse effect on our financial condition.

On May 3, 2017, we sold 24.9 million units, each consisting of one share of common stock, a Series A warrant to purchase one share of common stock, and a Series B warrant to purchase 0.75 shares of common stock, at a public offering price of \$1.00 per unit for aggregate gross proceeds of \$24.9 million in an underwritten firm commitment public offering. The Warrants contain provisions, often referred to as "down-round protection" that

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may lead to adjustment of the exercise price and number of underlying warrant shares with respect to future issuances by the Company of its securities, including its common stock or convertible securities or debt securities. In addition, two tranches of the contingent consideration to be paid to Sofar under the Senhance Acquisition agreement remain outstanding, to be paid if the designated milestones are met.

The Warrants and the contingent consideration are each recorded as a liability on our financial statements, and we are required to revalue each of the Warrants and the contingent consideration each financial quarter. Such revaluations necessarily involve the use of estimate, assumptions, probabilities and application of complex accounting principles. Actual value at the time the Warrants are exercised or the contingent consideration paid could vary significantly from the value assigned to such liabilities on a quarterly basis. We cannot assure you that the revaluation of the Warrants and contingent consideration will equal the value in the future, and know that the actual value could be significantly different, which could have a material adverse effect on our financial condition.

The exercise of our outstanding options and warrants will dilute shareholders and could decrease our stock price.

The existence of our outstanding options and warrants, including the Series A Warrants and Series B Warrants, may adversely affect our stock price due to sales of a large number of shares or the perception that such sales could occur. These factors also could make it more difficult to raise funds through future offerings of common stock or warrants, and could adversely impact the terms under which we could obtain additional equity capital. Exercise of outstanding options and warrants, or any future issuance of additional shares of common stock or other equity securities, including but not limited to options, warrants or other derivative securities convertible into our common stock, may result in significant dilution to our stockholders and may decrease our stock price.

If you purchase our common stock in this offering, you may incur immediate dilution in the book value of your investment.

The offering price per share in this offering may exceed the net tangible book value per share of our common stock outstanding prior to this offering. Assuming that an aggregate of 50,000,000 shares of our common stock are sold at a price of \$1.00 per share for aggregate gross proceeds of \$50,000,000, and after deducting commissions and estimated offering expenses payable by us, you would experience immediate dilution of \$0.76 per share, representing the difference between our as adjusted net tangible book value per share as of June 30, 2017 after giving effect to this offering and the assumed offering price. If we were to sell shares of our common stock in this offering at a price per share greater than our net tangible book value, it would result in dilution of your investment. The exercise of outstanding stock options and warrants or the settlement of outstanding restricted stock units would result in further dilution of your investment. See the section entitled **Dilution** below for a more detailed illustration of the dilution you may incur if you participate in this offering. Because the sales of the shares offered hereby will be made directly into the market or in negotiated transactions, the prices at which we sell these shares will vary and these variations may be significant. Purchasers of the shares we sell, as well as our existing stockholders, will experience significant dilution if we sell shares at prices significantly below the price at which they invested.

You may experience future dilution as a result of future equity offerings or other equity issuances.

In order to raise additional capital, we may in the future offer and issue additional shares of our common stock or other securities convertible into or exchangeable for our common stock. Under our effective shelf registration statement we can raise up to an additional \$100 million through the issuance of equity or debt securities. We cannot assure you that we will be able to sell shares or other securities in any offering at a price per share that is equal to or greater than the price per share paid by investors in previous offerings, and investors purchasing shares or other securities in the future could have rights superior to existing stockholders. The price per share at which we sell

additional shares of our common stock or other securities convertible into or exchangeable for our common stock in future transactions may be higher or lower than the price per share in previous offerings.

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The Warrants contain provisions, often referred to as “down-round protection” that may lead to adjustment of the exercise price and number of underlying warrant shares with respect to future issuances by the Company of its securities, including its common stock or convertible securities or debt securities. Any such adjustment could further impact the dilution from future offerings of our securities.

In addition, we have a significant number of stock options outstanding. To the extent that outstanding stock options have been or may be exercised or other shares issued, you may experience further dilution. Further, we may choose to raise additional capital due to market conditions or strategic considerations, even if we believe we have sufficient funds for our current or future operating plans.

The market price of our common stock has been, and may continue to be, highly volatile, and such volatility could cause the market price of our common stock to decrease and could cause you to lose some or all of your investment in our common stock.

During the two year period ended June 30, 2017, the market price of our common stock fluctuated from a high of \$6.10 per share to a low of \$0.45 per share, and our stock price continues to fluctuate. The market price of our common stock may continue to fluctuate significantly in response to numerous factors, some of which are beyond our control, such as:

the announcement of new products or product enhancements by us or our competitors;

developments concerning intellectual property rights and regulatory approvals;

variations in our and our competitors’ results of operations;

changes in earnings estimates or recommendations by securities analysts, if our common stock is covered by analysts;

developments in the medical device industry;

the results of product liability or intellectual property or federal securities lawsuits;

future issuances of common stock or other securities;

the addition or departure of key personnel;

announcements by us or our competitors of acquisitions, investments or strategic alliances; and

general market conditions and other factors, including factors unrelated to our operating performance. Further, the stock market in general, and the market for medical device companies in particular, has recently experienced extreme price and volume fluctuations. The volatility of our common stock is further exacerbated due to its low trading volume. Continued market fluctuations could result in extreme volatility in the price of our common stock, which could cause a decline in the value of our common stock and the loss of some or all of your investment.

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SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus supplement contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, or the Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act. All statements, other than statements of historical fact, included or incorporated by reference in this prospectus supplement regarding our strategy, future operations, collaborations, intellectual property, cash resources, financial position, future revenues, projected costs, prospects, plans and objectives are forward-looking statements. The words believes, anticipates, estimates, plans, expects, intends, may, could, should, projects, continue, will, and would and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words. We cannot guarantee that we actually will achieve the plans, intentions or expectations disclosed in our forward-looking statements and you should not place undue reliance on our forward-looking statements. There are a number of important factors that could cause our actual results to differ materially from those indicated or implied by forward-looking statements. These important factors include those set forth above under the heading Risk Factors in this prospectus supplement and in the reports incorporated by reference herein and therein. These factors and the other cautionary statements made in this prospectus supplement or incorporated by reference herein should be read as being applicable to all related forward-looking statements whenever they appear in this prospectus supplement or in the reports incorporated by reference herein. In addition, any forward-looking statements represent our estimates only as of the date that this prospectus supplement is filed with the SEC, and should not be relied upon as representing our estimates as of any subsequent date. We do not assume any obligation to update any forward-looking statements. We disclaim any intention or obligation to update or revise any forward-looking statement, whether as a result of new information, future events or otherwise.

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USE OF PROCEEDS

The amount of proceeds from this offering will depend on the number of shares sold and the market price at which they are sold. We currently intend to use the net proceeds of this offering for general corporate purposes, including working capital, product development and capital expenditures. While we have estimated the particular uses for the net proceeds of this offering, we have not determined the amounts we plan to spend on any of the areas listed above or the timing of these expenditures. As a result, our management will have broad discretion to allocate the net proceeds from this offering for any purpose, and investors will be relying on the judgment of our management with regard to the use of these net proceeds. Pending use of the net proceeds as described above, we intend to invest the net proceeds in money-market funds or U.S. treasuries until we use them for their stated purpose.

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If you invest in our common stock, your interest will be diluted immediately to the extent of the difference between the public offering price per share of our common stock and the as adjusted net tangible book value per share of common stock after this offering.

The net tangible book value of our common stock as of June 30, 2017 was approximately \$(0.9) million, or approximately \$(0.01) per share. Net tangible book value per share represents the amount of our total tangible assets less total liabilities divided by the total number of shares of our common stock outstanding.

Dilution per share to new investors represents the difference between the amount per share paid by purchasers for our common stock in this offering and the net tangible book value per share of our common stock immediately following the completion of this offering.

After giving effect to the sale of shares of common stock offered by this prospectus supplement at an assumed public offering price of \$1.00 per share, and after deducting commissions and estimated aggregate offering expenses payable by us, our as adjusted net tangible book value as of June 30, 2017 would have been approximately \$47.4 million, or approximately \$0.24 per share. This represents an immediate increase in net tangible book value of approximately \$0.25 per share to our existing stockholders and an immediate dilution in as adjusted net tangible book value of approximately \$0.76 per share to purchasers of our common stock in this offering, as illustrated by the following table:

Public offering price per share	\$ 1.00
Net tangible book value per share at June 30, 2017	\$ (0.01)
Increase in net tangible book value per share attributable to investors purchasing our common stock in this offering	\$ 0.25
As adjusted net tangible book value per share as of June 30, 2017 after giving effect to this offering	\$ 0.24
Dilution per share to investors purchasing our common stock in this offering	\$ 0.76

The table above is based on 148,536,356 shares of our common stock outstanding as of June 30, 2017, and excludes, as of such date:

16,220,452 shares of common stock issuable upon the exercise of outstanding options granted under our stock option plans at a weighted average exercise price of \$2.30 per share;

46,246,368 shares of common stock issuable upon the exercise of outstanding warrants at a weighted average exercise price of \$1.02 per share;

1,255,710 shares of common stock issuable upon vesting of outstanding restricted stock units; and

9,853,446 shares of common stock available for future issuance under our stock option plans.

To the extent that outstanding options are exercised, you will experience further dilution. In addition, we may choose to raise additional capital due to market conditions or strategic considerations even if we believe we have sufficient funds for our current or future operating plans. To the extent that additional capital is raised through the sale of equity or convertible debt securities, the issuance of these securities could result in further dilution to our stockholders.

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Table of Contents**PRICE RANGE OF COMMON STOCK**

Our common stock began trading on the NYSE American (formerly known as the NYSE MKT) on April 2, 2014 under the symbol TRXC.

The following table sets forth the high and low bid prices per share of our common stock as reported on the NYSE American for the period indicated. The bid prices represent inter-dealer transactions, without adjustments for retail mark-ups, mark-downs or commissions and may not necessarily represent actual transactions.

	Bid Prices	
	High	Low
2017		
First Quarter	\$ 1.63	\$ 1.05
Second Quarter	1.26	0.45
Third Quarter (through August 30, 2017)	0.95	0.60
2016		
First Quarter	\$ 4.79	\$ 1.54
Second Quarter	6.10	1.03
Third Quarter	1.97	1.16
Fourth Quarter	2.33	1.30
2015		
First Quarter	\$ 3.50	\$ 2.52
Second Quarter	4.87	2.70
Third Quarter	3.66	2.07
Fourth Quarter	2.90	2.10

The closing sale price of our common stock as reported on the NYSE American on August 28, 2017 was \$0.93 per share. As of August 28, 2017, there were approximately 230 record holders of our common stock (counting all shares held in single nominee registration as one stockholder). This does not include the number of persons whose stock is in nominee or street name accounts through brokers.

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PLAN OF DISTRIBUTION

We have entered into an At-the-Market Equity Offering Sales Agreement, dated August 31, 2017, or the Sales Agreement, with Stifel, Nicolaus & Company, Incorporated, or Stifel, under which we may offer and sell shares of our common stock having an aggregate gross sales price of up to \$50,000,000 from time to time through Stifel. The Sales Agreement has been filed as an exhibit to a Current Report on Form 8-K filed under the Exchange Act and is incorporated by reference in this prospectus supplement.

Upon delivery of a placement notice and subject to the terms and conditions of the Sales Agreement, Stifel may sell our common stock by any method permitted by law deemed to be an at the market offering as defined in Rule 415 promulgated under the Securities Act. Stifel may also sell our common stock in negotiated transactions with our prior approval. We may instruct Stifel not to sell common stock if the sales cannot be effected at or above the price designated by us from time to time. We or Stifel may suspend the offering of common stock upon notice and subject to other conditions.

We will pay Stifel commissions, in cash, for its services in acting as agent in the sale of our common stock. Stifel will be entitled to compensation at a commission rate equal to 3.0% of the aggregate gross proceeds from each sale of our common stock. Stifel may effect sales to or through dealers, and such dealers may receive compensation in the form of discounts, concessions or commissions from Stifel and/or purchasers of shares of common stock for whom they may act as agents or to whom they may sell as principal. Because there is no minimum offering amount required as a condition to close this offering, the actual total public offering amount, commissions and proceeds to us, if any, are not determinable at this time. We have also agreed to reimburse Stifel for certain expenses incurred in connection with the offering of our common stock pursuant to the sales agreement, up to a maximum of \$50,000. We estimate that the total expenses for the offering, excluding compensation and reimbursements payable to Stifel under the terms of the Sales Agreement, will be approximately \$125,000.

Settlement for sales of common stock will occur on the third business day, or such earlier day as is industry practice for regular-way trading, following the date on which any sales are made, or on some other date that is agreed upon by us and Stifel in connection with a particular transaction, in return for payment of the net proceeds to us. Sales of our common stock as contemplated in this prospectus will be settled through the facilities of The Depository Trust Company or by such other means as we and Stifel may agree upon. There is no arrangement for funds to be received in an escrow, trust or similar arrangement.

Subject to the terms and conditions of the Sales Agreement, Stifel will use its commercially reasonable efforts consistent with its normal trading and sales practices to sell on our behalf any shares to be offered by us under the Sales Agreement. In connection with the sale of the common stock on our behalf, Stifel will be deemed to be an underwriter within the meaning of the Securities Act and the compensation of Stifel will be deemed to be underwriting commissions or discounts. We have agreed to provide indemnification and contribution to Stifel against certain civil liabilities, including liabilities under the Securities Act.

The offering of our common stock pursuant to the Sales Agreement will terminate upon the earlier of (i) the sale of all of our common stock provided for in this prospectus supplement or (ii) the termination of the Sales Agreement as permitted therein. We and Stifel may each terminate the Sales Agreement at any time upon written notice.

Stifel and its affiliates may in the future provide various investment banking, commercial banking and other financial services for us and our affiliates, for which services they may in the future receive customary fees. To the extent required by Regulation M, Stifel will not engage in any market making activities involving our common stock while the offering is ongoing under this prospectus supplement and accompanying prospectus.

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LEGAL MATTERS

Certain legal matters with respect to the securities offered hereby have been passed upon by Ballard Spahr LLP, Philadelphia, Pennsylvania. Stifel is being represented in connection with this offering by Duane Morris LLP, Newark, New Jersey.

EXPERTS

The Company's consolidated financial statements as of December 31, 2016 and 2015, and for each of the three years in the period ended December 31, 2016, and management's assessment of the effectiveness of internal control over financial reporting as of December 31, 2016, incorporated by reference in this prospectus supplement have been so incorporated in reliance on the reports of BDO USA, LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting. The report on the consolidated financial statements incorporated herein by reference contains an explanatory paragraph regarding the Company's ability to continue as a going concern.

WHERE YOU CAN FIND MORE INFORMATION

This prospectus supplement and the accompanying prospectus are part of a registration statement on Form S-3 that we filed with the SEC under the Securities Act. This prospectus supplement and the accompanying prospectus do not contain all of the information included in the registration statement. We have omitted certain parts of the registration statement in accordance with the rules and regulations of the SEC. For further information, we refer you to the registration statement, including its exhibits and schedules. Statements contained in this prospectus supplement and the accompanying prospectus about the provisions or contents of any contract, agreement or any other document referred to are not necessarily complete. Please refer to the actual exhibit for a more complete description of the matters involved.

We file annual, quarterly and current reports, proxy statements and other information with the SEC. Our SEC filings, including the registration statement and exhibits, are available to the public at the SEC's website at <http://www.sec.gov>. You may also read, without charge, and copy the documents we file, at the SEC's public reference rooms at 100 F Street, N.E., Room 1580, Washington, D.C. 20549. You can request copies of these documents by writing to the SEC and paying a fee for the copying cost. Please call the SEC at 1-800-SEC-0330 for further information on the public reference rooms.

We maintain an Internet site at www.transenterix.com. We have not incorporated by reference into this prospectus supplement or the accompanying prospectus the information on our website, and you should not consider any of the information posted on or hyper-linked to our website to be a part of this prospectus supplement or the accompanying prospectus.

INCORPORATION BY REFERENCE

The SEC allows us to incorporate by reference the information we file with the SEC, which means we can disclose important information to you by referring you to those documents. The information we incorporate by reference is an important part of this prospectus supplement, and certain information that we will later file with the SEC will automatically update and supersede this information. We incorporate by reference the documents listed below as well as any future filings made with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act after the date of this prospectus supplement until we sell all of the securities under this prospectus supplement, except that we do not incorporate any document or portion of a document that is furnished to the SEC, but not deemed filed. The following

documents filed with the SEC are incorporated by reference in this prospectus supplement and the accompanying prospectus:

our Annual Report on Form 10-K for the year ended December 31, 2016, filed with the SEC on March 6, 2017;

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our Quarterly Reports on Form 10-Q for the quarter ended March 31, 2017, filed with the SEC on May 10, 2017 and for the quarter ended June 30, 2017, filed with the SEC on August 2, 2017;

our Current Reports on Form 8-K, filed with the SEC on January 5, 2017 (Items 1.01, 8.01 and 9.01), February 23, 2017 (Items 8.01 and 9.01), April 28, 2017 (Items 1.01, 1.02, 8.01 and 9.01), May 3, 2017 (Item 8.01), May 10, 2017 (Items 1.01, 1.02, 2.03, 3.03, 8.01 and 9.01), May 25, 2017 (Items 5.02, 5.07 and 9.01), June 6, 2017 (Items 5.02 and 9.01) and August 31, 2017 (Items 1.01, 1.02 and 9.01);

our definitive proxy statement on Schedule 14A, filed with the SEC on April 21, 2017; and

the description of the Company's common stock contained in the Registration Statement on Form 8-A filed on April 7, 2014, and any amendments to each such Registration Statement filed subsequently thereto, including all amendments or reports filed for the purpose of updating such description.

We will furnish to you, on written or oral request, a copy of any or all of the documents that have been incorporated by reference, including exhibits to these documents. You may request a copy of these filings at no cost by writing or telephoning our Secretary at the following address and telephone number:

TransEnterix, Inc.

Attention: Joshua Weingard, Chief Legal Officer and Secretary

635 Davis Drive, Suite 300

Morrisville, NC 27560

Telephone No.: (919) 765-8400

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PROSPECTUS

\$150,000,000

Common Stock

Preferred Stock

Warrants

Debt Securities

Units

We may offer and sell from time to time, in one or more offerings, up to \$150,000,000 of any combination of common stock, preferred stock, warrants and debt securities, either individually or in units consisting of any two or more of such securities. We may also offer securities upon the exercise of warrants.

Each time we sell securities pursuant to this prospectus, we will provide the specific terms of the securities offered in a supplement to this prospectus. The prospectus supplements will also describe the specific manner in which we will offer these securities and may also supplement, update or amend information contained in this prospectus. You should read this prospectus and any related prospectus supplement carefully before you invest in our securities.

The securities may be sold on a delayed or continuous basis directly by us, through dealers, agents or underwriters designated from time to time, or through any combination of these methods. If any dealers, agents or underwriters are involved in the sale of the securities in respect of which this prospectus is being delivered, we will disclose their names and the nature of our arrangements with them in any prospectus supplement. The net proceeds we expect to receive from any such sale will also be included in the applicable prospectus supplement.

Our common stock is traded on the NYSE MKT under the symbol TRXC. On May 9, 2017, the closing price of our common stock was \$0.62 per share.

Investing in our securities involves a high degree of risk. See RISK FACTORS on page 4.

This prospectus may not be used to offer or sell securities unless accompanied by a prospectus supplement for the securities being sold.

Neither the Securities and Exchange Commission nor any other regulatory body has approved or disapproved of these securities or passed upon the adequacy or accuracy of this prospectus. Any representation to the contrary is a criminal offense.

The date of this Prospectus is May 19, 2017.

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SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS	

This prospectus contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended (the Securities Act), and Section 21E of the Securities Exchange Act of 1934, as amended (the Exchange Act). All statements, other than statements of historical fact, included or incorporated in this prospectus regarding our strategy, future operations, collaborations, intellectual property, cash resources, financial position, future revenues, projected costs, prospects, plans, and objectives of management are forward-looking statements. The words believes, anticipates, estimates, plans, expects, intends, may, could, should, potential, likely, projects, and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words. We cannot guarantee that we actually will achieve the plans, intentions or expectations disclosed in our forward-looking statements and you should not place undue reliance on our forward-looking statements. There are a number of important factors that could cause our actual results to differ materially from those indicated or implied by forward-looking statements. These important factors include those referenced under the heading Risk Factors. These factors and the other cautionary statements made in this prospectus should be read as being applicable to all related forward-looking statements whenever they appear in this prospectus. In addition, any forward-looking statements represent our estimates only as of the date that this prospectus is filed with the SEC, and should not be relied upon as representing our estimates as of any subsequent date. We do not assume any obligation to update any forward-looking statements. We disclaim any intention or obligation to update or revise any forward-looking statement, whether as a result of new information, future events or otherwise.

You should rely only on the information contained in this prospectus and in any prospectus supplement (including in any documents incorporated by reference herein or therein). We have not authorized anyone to provide you with any different information. We are offering to sell our securities, and seeking offers to buy, only in jurisdictions where offers and sales are permitted.

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PROSPECTUS SUMMARY

This summary highlights information contained elsewhere in this prospectus. This summary does not contain all of the information you should consider before investing in our securities. You should read this entire prospectus carefully, especially the Risk Factors section beginning on page 4 and our financial statements and the related notes incorporated by reference into this prospectus, before making an investment decision.

Company Overview

We are a medical device company that is pioneering the use of robotics to improve minimally invasive surgery by addressing clinical and economic challenges associated with current laparoscopic and competitive robotic options. The Company is focused on the commercialization and further development of its Senhance™ Surgical Robotic System (formerly known as the ALF-X® Surgical Robotic System), or the Senhance System, a multi-port robotic system that brings the advantages of robotic surgery to patients while enabling surgeons with innovative technology. The Company also developed the SurgiBot System, or SurgiBot System, a single-port, robotically enhanced laparoscopic surgical platform. The Senhance System has been granted a CE Mark in Europe for laparoscopic abdominal and pelvic surgery, as well as limited thoracic operations excluding cardiac and vascular surgery, but is not available for sale in the U.S. The SurgiBot System is not yet available for sale in any market.

The Senhance System is a multi-port robotic surgery system which allows multiple robotic arms to control instruments and a camera vision system laparoscope. The system features advanced technology to enable surgeons with haptic feedback and the ability to move the laparoscopic camera via eye movement. The system replicates laparoscopic motion that is familiar to experienced surgeons, and integrates 3DHD vision technology. The Senhance System also offers responsible economics to hospitals by offering robotic technology with reusable instruments. In April 2017, the Company submitted a 510(k) application to the Food and Drug Administration, or FDA, for the Senhance System.

The SurgiBot System is designed to utilize flexible instruments through articulating channels controlled directly by the surgeon, with robotic assistance, while the surgeon remains patient-side within the sterile field. In June 2015, the Company submitted a 510(k) application to the Food and Drug Administration, or FDA, for the SurgiBot System. On April 19, 2016, the FDA notified the Company that the SurgiBot System did not meet the criteria for substantial equivalence based on the data and information submitted by the Company in the 510(k) submission.

Our current strategy is to focus our resources on the commercialization of and U.S. regulatory clearance for the Senhance System. To date, we have sold two Senhance Systems.

We believe that:

there are a number of hospitals and an increasing number of ambulatory surgery centers in the U.S. and internationally that could benefit from the addition of robotic-assisted minimally invasive surgery and, with the Senhance System, lower operational costs;

with the Senhance System, surgeons can benefit from the haptic feedback, enhanced 3DHD vision and open architecture consistent with current laparoscopic surgery procedures; and

patients will continue to seek a minimally invasive option for many common general abdominal and gynecologic surgeries, which are addressed by the Senhance System.

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We believe that future outcomes of minimally invasive surgery will be enhanced through our combination of more advanced tools and robotic functionality which are designed to: (i) empower surgeons with improved precision, dexterity and visualization; (ii) improve patient satisfaction and enable a desirable post-operative recovery; and (iii) provide a cost-effective robotic system, compared to existing alternatives today, for a potentially wide range of clinical applications.

The Senhance System

The Senhance System is a multi-port robotic surgery system that allows up to four robotic arms to control instruments and a camera. The system builds on the success of laparoscopy by enhancing the traditional features that surgeons have come to expect from existing products and by addressing some of the trade-offs associated with using competing robotic offerings versus traditional instruments for laparoscopic procedures. The Senhance System also offers responsible economics to hospitals by offering reusable instruments that reduce additional costs per surgery when compared to laparoscopy. The Senhance System has been granted a CE Mark in Europe for use in abdominal and pelvic surgery; it is not available for sale in the U.S.

Key features of the Senhance System are:

Haptic Feedback: The Senhance System's force feedback provides the surgeon with the ability to feel the tissue response during a procedure;

Enhanced Vision: The Senhance System features 3DHD vision technology and gives the surgeon the ability to move the camera via eye movement so that the camera is centered in the surgeon's field of vision;

Laparoscopic Motion: The Senhance System utilizes laparoscopic motion that is similar to the motion used during traditional laparoscopic surgeries;

View of the Sterile Field: The Senhance System offers the surgeon an open view of the operating room and sterile field from the console; and

Enables use of standard trocars: The Senhance System allows for standard laparoscopic trocars to be used and does not require that robotic arms be docked directly to the patient.

May 2017 Financing

On April 28, 2017, we entered into an underwriting agreement with Stifel, Nicolaus & Company, Incorporated, relating to an underwritten public offering of an aggregate of 24,900,000 units, each unit consisting of one share of common stock, a Series A warrant to purchase one share of common stock and a Series B warrant to purchase 0.75 shares of common stock. The offering price to the public was \$1.00 per unit. Each Series A warrant has an initial exercise price of \$1.00 per share and may be exercised at any time beginning on the date of issuance, and from time to time thereafter, through and including the first anniversary of the issuance date, unless terminated earlier as provided in the Series A warrant. In the event the FDA provides clearance with respect to the Company's Senhance System 510(k) application, which was filed with the FDA in April 2017, the holders of Series A warrants will have 10

business days after written notice to exercise, in whole or in part, their Series A warrants. Any Series A warrants that remain unexercised after such 10 business day period will expire. Each Series B warrant has an initial exercise price of \$1.00 per share, is exercisable immediately, and has a term of five years. The exercise prices and the number of shares issuable upon exercise of each of the warrants are subject to adjustment upon the occurrence of certain events, including, but not limited to, stock splits or dividends, business

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combinations, sale of assets, similar recapitalization transactions, or other similar transactions. The exercise prices of each of the warrants are also subject to adjustment in the event that we issue, or are deemed to issue, shares of common stock for less than the then applicable exercise prices of each of the warrants.

As used herein, the terms Company, we, our, or us each includes TransEnterix, Inc. and its subsidiaries, TransEnterix International, Inc., TransEnterix Italia, S.r.l., TransEnterix Europe S.Á.R.L, TransEnterix Europe S.Á.R.L, Bertrange, Swiss Branch, Lugano and TransEnterix Asia PTE. LTD. after giving effect to the Senhance Acquisition.

The Company operates in one business segment.

Company Information

We were organized as a Delaware corporation on August 19, 1988. Our principal executive offices are located at 635 Davis Drive, Suite 300, Morrisville, NC 27560. Our phone number is (919) 765-8400 and our Internet address is www.transenterix.com. The information on our website or any other website is not incorporated by reference in this prospectus and does not constitute a part of this prospectus.

ABOUT THIS PROSPECTUS

This prospectus is part of a shelf registration statement that we filed with the U.S. Securities and Exchange Commission, or the SEC. By using a shelf registration statement, we may, from time to time, issue any combination of the securities described in this prospectus in one or more offerings up to an aggregate maximum offering price of \$150,000,000 in one or more offerings. Each time we sell any of our securities, we will provide a prospectus supplement that will contain more specific information about the offering and the terms of the securities being sold. We may also add, update or change in the prospectus supplement any of the information contained in this prospectus or the documents incorporated by reference.

This prospectus provides you with a general description of the Company and our securities. For further information about our business and our securities, you should refer to the registration statement and the reports incorporated by reference in this prospectus, as described in **Where You Can Find More Information**.

You should rely only on the information contained in this prospectus and in any prospectus supplement (including in any documents incorporated by reference herein or therein). We have not authorized anyone to provide you with any different information. We are offering to sell our securities, and seeking offers to buy, only in jurisdictions where offers and sales are permitted.

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RISK FACTORS

Investing in our securities involves substantial risks. In addition to other information contained in this prospectus and any accompanying prospectus supplement, before investing in our securities, you should carefully consider the risks described under the heading **Risk Factors** in our most recent Annual Report on Form 10-K, as it may be amended, and subsequent Quarterly Reports on Form 10-Q, and in any other documents incorporated by reference into this prospectus, as updated by our future filings. These risks are not the only ones faced by us. Additional risks not known or that are deemed immaterial could also materially and adversely affect our financial condition, results of operations, our products, business and prospects. Any of these risks might cause you to lose all or a part of your investment.

USE OF PROCEEDS

Unless otherwise indicated in the applicable prospectus supplement, we intend to use the net proceeds from the sale of the securities under this prospectus together with our existing cash resources, for working capital and other general corporate purposes, including commercialization and regulatory clearance activities for our products. We may also use a portion of the net proceeds that we receive to acquire or invest in complementary businesses, products, services, technologies, or other assets. At this time, we have not determined the specific uses of any offering proceeds, or the amounts we plan to spend on any particular use or the timing of such expenditures, which may vary significantly depending on various factors such as our research and development activities, regulatory approvals, competition, marketing and sales, and the market acceptance of any products introduced by us or our partners. Pending application of the net proceeds from any particular offering, we intend to invest such proceeds in short-term, interest-bearing, investment-grade securities.

Each time we issue securities, we will provide a prospectus supplement that will contain information about how we intend to use the proceeds from each such offering.

We cannot guarantee that we will receive any proceeds in connection with any offering hereunder because we may choose not to issue any of the securities covered by this prospectus.

PLAN OF DISTRIBUTION

We may sell the securities being offered hereby from time to time in one or more of the following ways:

through one or more underwriters;

through dealers, who may act as agents or principals (including a block trade in which a broker or dealer so engaged will attempt to sell the shares as agent but may position and resell a portion of the block as principal to facilitate the transaction);

directly to one or more purchasers;

through agents;

through registered direct offerings;

as part of a collaboration with a third party;

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through at the market offerings, within the meaning of Rule 415(a)(4) of the Securities Act, to or through a market maker or into an existing trading market on an exchange or otherwise;

in privately negotiated transactions; and

in any combination of these methods of sale.

We will set forth in a prospectus supplement the terms of the offering of securities, including:

the name or names of any agents, underwriters or dealers;

the terms of the securities being offered, including the purchase price and the proceeds we will receive from the sale;

any underwriting discounts and commissions or agency fees and other items constituting underwriters or agents compensation;

any over-allotment options under which underwriters may purchase additional securities from us; and

any discounts or concessions allowed or reallocated or paid to dealers.

The distribution of the securities may be effected from time to time in one or more transactions at a fixed price or prices, which may be changed, at market prices prevailing at the time of sale, at prices related to the prevailing market prices, or at negotiated prices.

Underwriters, dealers, agents and others that participate in the distribution of the securities may be underwriters as defined in the Securities Act and any discounts or commissions they receive from us and any profit on their resale of the securities may be treated as underwriting discounts and commissions under the Securities Act. In no event will the total amount of cash compensation paid to underwriters, placement agents, dealers or brokers exceed 10% of the gross proceeds of the offering. We will identify in the applicable prospectus supplement any underwriters, dealers, agents and others and will describe their compensation. We may have agreements with underwriters, dealers, agents and others to indemnify them against specified civil liabilities, including liabilities under the Securities Act. Underwriters, dealers, agents and others may engage in transactions with or perform services for us in the ordinary course of their businesses.

If required under applicable state securities laws, we will sell the securities only through registered or licensed brokers or dealers. In addition, in some states, we may not sell securities unless they have been registered or qualified for sale in the applicable state or unless we have complied with an exemption from any registration or qualification requirements.

Agents

We may designate agents who agree to solicit purchases for the period of their appointment or to sell securities on a continuing basis. Unless the prospectus supplement provides otherwise, agents will act on a best efforts basis for the period of their appointment. Agents may receive compensation in the form of commissions, discounts or concessions from us. Agents may also receive compensation from the purchasers of the securities for whom they sell as principals. Each particular agent will receive compensation in amounts negotiated in connection with the sale, which might be in excess of customary commissions.

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Underwriters

If we use underwriters for a sale of securities, the underwriters will acquire the securities for their own account. The underwriters may resell the securities in one or more transactions, including negotiated transactions, at a fixed public offering price or at varying prices determined at the time of sale. The obligations of the underwriters to purchase the securities will be subject to the conditions set forth in the applicable underwriting agreement. Unless the prospectus supplement provides otherwise, underwriters will be obligated to purchase all of the securities offered by the prospectus supplement. We may change from time to time any initial public offering price and any discounts or concessions the underwriters allow or reallow or pay to dealers. We may use underwriters with whom we have a material relationship, and we may offer the securities to the public through an underwriting syndicate or through a single underwriter. We will describe in the prospectus supplement naming the underwriter the nature of any such relationship and underwriting arrangement.

Dealers

We also may sell securities to a dealer as principal. If we sell our securities to a dealer as a principal, then the dealer may resell those securities to the public at varying prices to be determined by such dealer at the time of resale. The name of the dealer and the terms of the transactions will be set forth in the applicable prospectus supplement.

Direct Sales and Institutional Purchases

We may also sell securities directly to one or more purchasers, in which case underwriters or agents would not be involved in the transaction.

Further, we may authorize agents, underwriters or dealers to solicit offers by certain types of institutional investors to purchase securities from us at the public offering price set forth in the prospectus supplement pursuant to delayed delivery contracts providing for payment and delivery on a specified date in the future. We will describe the conditions to these contracts and the commissions we must pay for solicitation of these contracts in an applicable prospectus supplement.

Stabilization Activities

Any underwriter may engage in overallotment, stabilizing transactions, short covering transactions and penalty bids in accordance with Regulation M under the Exchange Act.

Overallotment involves sales in excess of the offering size, which create a short position. Stabilizing transactions permit bids to purchase the underlying security so long as the stabilizing bids do not exceed a specified maximum. Short covering transactions involve purchases in the open market after the distribution is completed to cover short positions. Penalty bids permit the underwriters to reclaim a selling concession from a dealer when the securities originally sold by the dealer are purchased in a covering transaction to cover short positions. Such activities may cause the price of the securities to be higher than they would otherwise be. If commenced, the underwriters may discontinue any of the activities at any time. These transactions may be effected on the NYSE MKT or otherwise.

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Passive Market Making

Any underwriters who are qualified market makers on the NYSE MKT may engage in passive market making transactions on the NYSE MKT in accordance with Rule 103 of Regulation M, during the business day prior to the pricing of the offering, before the commencement of offers or sales. Passive market makers must comply with applicable volume and price limitations and must be identified as passive market makers. In general, a passive market maker must display its bid at a price not in excess of the highest independent bid for such security; if all independent bids are lowered below the passive market maker's bid, however, the passive market maker's bid must then be lowered when certain purchase limits are exceeded.

Costs

We will bear all costs, expenses and fees in connection with the registration of the securities, as well as the expense of all commissions and discounts, if any, attributable to sales of the securities by us.

DESCRIPTION OF CAPITAL STOCK

Our authorized capital stock consists of 750,000,000 shares of common stock, par value \$0.001 per share, and 25,000,000 shares of preferred stock, par value \$0.01 per share.

Common Stock

Of the authorized common stock, as of March 31, 2017, there were 123,629,689 shares outstanding and as of March 31, 2017 there were 18,542,529 shares of our common stock reserved for the exercise of outstanding stock options, warrants and restricted stock units. There were approximately 240 record holders as of March 31, 2017. Subject to the prior rights of the holders of any shares of preferred stock which may be issued in the future, the holders of our common stock are entitled to receive dividends from our funds legally available therefor when, as and if declared by our Board of Directors, and are entitled to share ratably in all of our assets available for distribution to holders of our common stock upon the liquidation, dissolution or winding-up of our affairs, subject to the liquidation preference, if any, of any then outstanding shares of preferred stock. Holders of our common stock do not have any preemptive, subscription, redemption or conversion rights. Holders of our common stock are entitled to one vote per share on all matters which they are entitled to vote upon at meetings of stockholders or upon actions taken by written consent pursuant to Delaware corporate law. The holders of our common stock do not have cumulative voting rights, which mean that the holders of a plurality of the outstanding shares can elect all of our directors. All of the shares of our common stock currently issued and outstanding are fully-paid and nonassessable. No dividends have been paid to holders of our common stock since our incorporation, and no cash dividends are anticipated to be declared or paid in the reasonably foreseeable future.

Transfer Agent

The transfer agent for our common stock is Continental Stock & Transfer Company.

Listing

The shares of our common stock are currently listed on the NYSE MKT under the symbol TRXC.

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Preferred Stock

Our Board has the authority, without further action by the holders of the outstanding common stock, to issue preferred stock from time to time in one or more classes or series, to fix the number of shares constituting any class or series and the stated value thereof, if different from the par value, as to fix the terms of any such series or class, including dividend rights, dividend rates, conversion or exchange rights, voting rights, rights and terms of redemption (including sinking fund provisions), the redemption price and the liquidation preference of such class or series.

Anti-Takeover Effects of Certain Provisions of our Certificate of Incorporation, our Bylaws and Delaware Law

Delaware Statute

We are subject to Section 203 of the Delaware General Corporation Law, which prohibits a publicly held Delaware corporation from engaging in a business combination with an interested stockholder for a period of three years after the date of the transaction in which the person became an interested stockholder, unless:

prior to such date, our board of directors approves either the business combination or the transaction that resulted in the stockholder s becoming an interested stockholder;

upon consummation of the transaction that resulted in the stockholder becoming an interested stockholder, the interested stockholder owns at least 85% of our outstanding voting stock, excluding shares held by directors, officers and certain employee stock plans; or

on or after the consummation date, the business combination is approved by our board of directors and by the affirmative vote at an annual or special meeting of stockholders holding at least two-thirds of our outstanding voting stock that is not owned by the interested stockholder.

For purposes of Section 203, a business combination includes, among other things, a merger, asset sale or other transaction resulting in a financial benefit to the interested stockholder, and an interested stockholder is generally a person who, together with affiliates and associates of such person:

owns 15% or more of outstanding voting stock; or

is an affiliate or associate of ours and was the owner of 15% or more of our outstanding voting stock at any time within the prior three years.

Certificate of Incorporation and Bylaw Provisions

Our amended and restated certificate of incorporation and amended and restated bylaws include provisions that, among others, could have the effect of delaying, deferring or discouraging potential acquisition proposals and could delay or prevent a change of control of the Company. The provisions in our certificate of incorporation and bylaws that may have such effect include:

Preferred Stock. As noted above, our board of directors, without stockholder approval, has the authority under our certificate of incorporation to issue preferred stock with rights superior to the rights of the holders of common stock. As a result, we could issue preferred stock quickly and easily, which could adversely affect the rights of holders of our common stock and could be issued with terms calculated to delay or prevent a change of control or make removal of management more difficult.

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Stockholder Meetings. Under our certificate of incorporation, as amended, and bylaws, special meetings of our stockholders may be called only by the vote of a majority of the entire board of directors or the chairman of the board of directors. Our stockholders may not call a special meeting of the stockholders.

Requirements for Advance Notification of Stockholder Nominations and Proposals. Our bylaws establish advance notice procedures with respect to stockholder proposals and the nomination of candidates for election as directors, other than nominations made by or at the direction of our board of directors or a committee thereof.

DESCRIPTION OF DEBT SECURITIES

General

The debt securities that we may issue will constitute debentures, notes, bonds or other evidences of indebtedness of the Company, to be issued in one or more series. The particular terms of any series of debt securities we offer, including the extent to which the general terms set forth below may be applicable to a particular series, will be described in a prospectus supplement relating to such series.

Debt securities that we may issue will be issued under an indenture between us and a trustee qualified to act as such under the Trust Indenture Act of 1939. When we refer to the indenture in this prospectus, we are referring to the indenture under which debt securities are issued as supplemented by any supplemental indenture applicable to such debt securities. We will provide the name of the trustee in any prospectus supplement related to the issuance of debt securities, and we will also provide certain other information related to the trustee, including describing any relationship we have with the trustee, in such prospectus supplement.

Unless otherwise specified in a prospectus supplement, the debt securities will be direct secured or unsecured obligations of the Company. The senior debt securities will rank equally with any of our other unsecured senior and unsubordinated debt. The subordinated debt securities will be subordinate and junior in right of payment to any senior indebtedness.

We may issue debt securities from time to time in one or more series, in each case with the same or various maturities, at par or at a discount. Unless indicated in a prospectus supplement, we may issue additional debt securities of a particular series without the consent of the holders of the debt securities of such series outstanding at the time of the issuance. Any such additional debt securities, together with all other outstanding debt securities of that series, will constitute a single series of debt securities under the applicable indenture and will be equal in ranking.

The following statements relating to the debt securities and the indenture are summaries and do not purport to be complete, and are subject in their entirety to the detailed provisions of the indenture.

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Information to be provided in a Prospectus Supplement

The prospectus supplement will set forth the following terms of the debt securities in respect of which this prospectus is delivered:

the title and denominations of the debt securities of the series;

any limit on the aggregate principal amount of the debt securities of the series;

the date or dates on which the principal and premium, if any, with respect to the debt securities of the series are payable or the method of determination thereof;

the rate or rates, which may be fixed or variable, at which the debt securities of the series shall bear interest, if any, or the method of calculating and/or resetting such rate or rates of interest;

the dates from which such interest shall accrue or the method by which such dates shall be determined and the duration of the extensions and the basis upon which interest shall be calculated;

the interest payment dates for the series of debt securities or the method by which such dates will be determined, the terms of any deferral of interest and any right of ours to extend the interest payments periods;

the terms and conditions upon which debt securities of the series may be redeemed, in whole or in part, at our option or otherwise;

our obligation, if any, to redeem, purchase, or repay debt securities of the series pursuant to any sinking fund or other specified event or at the option of the holders and the terms of any such redemption, purchase, or repayment;

the terms, if any, upon which the debt securities of the series may be convertible into or exchanged for preferred stock or common stock, including, among other things, the initial conversion or exchange price or rate and the conversion or exchange period;

if the amount of principal, premium, if any, or interest with respect to the debt securities of the series may be determined with reference to an index or formula, the manner in which such amounts will be determined;

if any payments on the debt securities of the series are to be made in a currency or currencies (or by reference to an index or formula) other than that in which such securities are denominated or designated to be payable, the currency or currencies (or index or formula) in which such payments are to be made and the terms and conditions of such payments;

any changes or additions to the provisions of the indenture dealing with defeasance, including any additional covenants that may be subject to our covenant defeasance option;

the currency or currencies in which payment of the principal and premium, if any, and interest with respect to debt securities of the series will be payable, or in which the debt securities of the series shall be denominated, and the particular provisions applicable thereto in accordance with the indenture;

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the portion of the principal amount of debt securities of the series which will be payable upon declaration of acceleration or provable in bankruptcy or the method by which such portion or amount shall be determined;

whether the debt securities of the series will be secured and, if so, on what terms;

any events of default with respect to the debt securities of the series;

the identity of any trustees, authenticating or paying agents, transfer agents or registrars;

the applicability of, and any addition to or change in, the covenants currently set forth in the indenture;

the subordination, ranking or priority, if any, of the debt securities of the series and terms of the subordination;

any other terms of the debt securities of the series which are not prohibited by the indenture; and

whether securities of the series shall be issuable as registered securities or bearer securities (with or without interest coupons), and any restrictions applicable to the offering, sale or delivery of such bearer securities and the terms upon which such bearer securities of a series may be exchanged for registered securities, and vice versa.

Interest Rate

Debt securities that bear interest will do so at a fixed rate or a floating rate. We may sell, at a discount below the stated principal amount, any debt securities which bear no interest or which bear interest at a rate that at the time of issuance is below the prevailing market rate. The relevant prospectus supplement will describe the special United States federal income tax considerations applicable to any discounted debt securities and any debt securities issued at par which are treated as having been issued at a discount for United States federal income tax purposes.

Transfer and Exchange

We may issue debt securities that would be represented by either:

- (a) book-entry securities, which means that there will be one or more global securities registered in the name of The Depository Trust Company, as depository, or a nominee of the depository; or
- (b) certificated securities, which means that they will be represented by a certificate issued in definitive registered form.

We would specify in the prospectus supplement applicable to a particular offering whether the debt securities offered will be book-entry or certificated securities. Except as set forth under **Global Debt Securities and Book-Entry System** below, book-entry debt securities would not be issuable in certificated form.

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Certificated Debt Securities

If you hold certificated debt securities that have been offered by this prospectus, you may transfer or exchange them at the trustee's office or at the paying agency in accordance with the terms of the indenture. You would not be charged a service charge for any transfer or exchange of certificated debt securities, but may be required to pay an amount sufficient to cover any tax or other governmental charge payable in connection with the transfer or exchange.

The transfer of certificated debt securities and of the right to receive the principal of, premium and/or interest, if any, on your certificated debt securities can occur only by surrendering the certificate representing your certificated debt securities and having us or the trustee issue a new certificate to the new holder.

Global Debt Securities and Book Entry System

If we decided to issue debt securities in the form of one or more global securities, then we would register the global securities in the name of the depository for the global securities or in the nominee of the depository, and the global securities would be delivered by the trustee to the depository for credit to the accounts of the holders of beneficial interest in the debt securities. Each global security would:

be registered in the name of a depository, or its nominee, that we would identify in a prospectus supplement;

be deposited with the depository or nominee or custodian; and

bear any required legends.

No global security may be exchanged in whole or in part for debt securities registered in the name of any person other than the depository or any nominee unless:

the depository has notified us that it is unwilling or unable to continue as depository or has ceased to be qualified to act as depository;

an event of default has occurred and is continuing with respect to the debt securities of the applicable series;
or

any other circumstance described in a prospectus supplement has occurred permitting or requiring the issuance of any such security.

As long as the depository, or its nominee, is the registered owner of a global security, the depository or nominee would be considered the sole owner and holder of the debt securities represented by the global security for all purposes under the indentures. Except in the above limited circumstances, owners of beneficial interests in a global security would not be:

entitled to have the debt securities registered in their names;

entitled to physical delivery of certificated debt securities; or

considered to be holders of those debt securities under the indenture.

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Payments on a global security would be made to the depository or its nominee as the holder of the global security. Some jurisdictions have laws that require that certain purchasers of securities take physical delivery of such securities in definitive form. These laws may impair the ability to transfer beneficial interests in a global security.

Institutions that have accounts with the depository or its nominee are referred to as participants. Ownership of beneficial interests in a global security would be limited to participants and to persons that may hold beneficial interests through participants. The depository would credit, on its book-entry registration and transfer system, the respective principal amounts of debt securities represented by the global security to the accounts of its participants.

Ownership of beneficial interests in a global security would be shown on and effected through records maintained by the depository, with respect to participants' interests, or any participant, with respect to interests of persons held by participants on their behalf.

Payments, transfers and exchanges relating to beneficial interests in a global security would be subject to policies and procedures of the depository. The depository policies and procedures may change from time to time. Neither any trustee nor we would have any responsibility or liability for the depository's or any participant's records with respect to beneficial interests in a global security.

The prospectus supplement would describe the specific terms of the depository arrangement for debt securities of a series that are issued in global form. The Company and its agents, the trustee, and any of its agents would not have any responsibility or liability for any aspect of the records relating to or payments made on account of beneficial ownership interests in the global debt security or for maintaining, supervising or reviewing any records relating to the beneficial ownership interests.

Conversion or Exchange Rights

Debt securities offered hereby may be convertible into or exchangeable for shares of our common or preferred stock. The terms and conditions of such conversion or exchange will be set forth in the applicable prospectus supplement. Such terms may include, among others, the following:

the conversion or exchange price;

the conversion or exchange period;

provisions regarding our ability or that of the holder to convert or exchange the debt securities;

events requiring adjustment to the conversion or exchange price; and

provisions affecting conversion or exchange in the event of our redemption of such debt securities.

Covenants

Unless otherwise indicated in a prospectus supplement, the debt securities would not have the benefit of any covenants that limit or restrict our business or operations, the pledging of our assets or the incurrence by us of indebtedness. We would describe in the applicable prospectus supplement any material covenants of a series of debt securities.

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Concerning the Trustee

We would identify the trustee with respect to any series of debt securities in the prospectus supplement relating to the debt securities. You should note that if the trustee becomes a creditor of the Company, the indenture and the Trust Indenture Act of 1939 limit the rights of the trustee to obtain payment of claims in certain cases, or to realize on certain property received in respect of certain claims, as security or otherwise. The trustee and its affiliates may engage in, and would be permitted to continue to engage in, other transactions with us and our affiliates. If, however, the trustee acquires any conflicting interest within the meaning of the Trust Indenture Act of 1939, it must eliminate the conflict or resign.

The holders of a majority in principal amount of the then outstanding debt securities of any series may direct the time, method and place of conducting any proceeding for exercising any remedy available to the trustee. If an event of default occurs and is continuing, the trustee, in the exercise of its rights and powers, must use the degree of care and skill of a prudent person in the conduct of his or her own affairs. Subject to this provision, the trustee would be under no obligation to exercise any of its rights or powers under the indenture at the request of any of the holders of the debt securities, unless they have offered to the trustee reasonable indemnity or security.

DESCRIPTION OF WARRANTS

We may issue warrants to purchase preferred stock or common stock. We may offer warrants separately or together with one or more additional warrants, debt securities, shares of preferred stock or common stock, or any combination of those securities in the form of units, as described in the applicable prospectus supplement. If we issue warrants as part of a unit, the prospectus supplement will specify whether those warrants may be separated from the other securities in the unit prior to the warrants' expiration date. We may issue the warrants under warrant agreements to be entered into between us and a bank or trust company, as warrant agent, all as described in the prospectus supplement. If we issue the warrants under warrant agreements, the warrant agent will act solely as our agent in connection with the warrants and will not assume any obligation or relationship of agency or trust for or with any holders or beneficial owners of warrants.

We will describe the particular terms of any warrants that we offer in the prospectus supplement relating to those warrants. Those terms may include the following:

the specific designation and aggregate number of warrants, and the price at which we will issue the warrants;

the currency or currency units in which the offering price, if any, and the exercise price are payable;

the date on which the right to exercise the warrants will begin and the date on which the right will expire or, if the warrants are not continuously exercisable throughout that period, the specific date or dates on which they are exercisable;

whether the warrants will be issued in fully registered form or bearer form, in definitive or global form or in any combination of these forms;

any applicable material United States federal income tax considerations;

the identity of the warrant agent, if any, for the warrants and of any other depositaries, execution or paying agents, transfer agents, registrars or other agents;

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the designation, aggregate principal amount, currency, denomination and terms of any debt securities that may be purchased upon exercise of the warrants;

the designation, amount, currency, denominations and terms of any preferred stock or common stock purchasable upon exercise of the warrants;

if applicable, the designation and terms of the debt securities, preferred stock or common stock with which the warrants are issued and the number of warrants issued with each security;

if applicable, the date from and after which the warrants and the related debt securities, preferred stock or common stock will be separately transferable;

the principal amount of debt securities or the number of shares of preferred stock or common stock purchasable upon exercise of any warrant and the price at which those shares may be purchased;

provisions for changes to or adjustments in the exercise price;

if applicable, the minimum or maximum number of warrants that may be exercised at any one time;

information with respect to any book-entry procedures;

any anti-dilution provision of the warrants;

any redemption or call provisions; and

any additional terms of the warrants, including terms, procedures and limitations relating to the exchange and exercise of the warrants.

Pursuant to the Amended and Restated Loan and Security Agreement, as amended, among the Company and its U.S. operating subsidiaries, including TransEnterix Surgical and TransEnterix International, and Oxford Finance LLC and Silicon Valley Bank, as lenders, we have issued warrants to purchase an aggregate of 430,815 shares of common stock to the lenders since 2012. Pursuant to a stock purchase agreement dated March 22, 2013 among a predecessor of the Company and the investors executing such agreement, warrants to acquire 1,209,600 shares of common stock were issued. As of March 31, 2017, warrants to acquire 1,426,622 shares of our common stock remain outstanding.

DESCRIPTION OF UNITS

We may issue units consisting of one or more of the other securities that may be offered under this prospectus, in any combination. These units may be issuable as, and for a specified period of time may be transferable only as, a single

security, rather than as the separate constituent securities comprising such units. The statements made in this section relating to the units are summaries only and are not complete. When we issue units, we will provide the specific terms of the units in a prospectus supplement. To the extent the information contained in the prospectus supplement differs from this summary description, you should rely on the information in the prospectus supplement.

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RATIO OF EARNINGS TO FIXED CHARGES

If we offer debt securities and/or shares of preferred stock under this prospectus, then, if required at that time, we will provide a ratio of earnings to fixed charges and/or ratio of combined fixed charges and preference dividends to earnings, respectively, in the applicable prospectus supplement for such offering.

LEGAL MATTERS

Certain legal matters with respect to the securities offered hereby have been passed upon by Ballard Spahr LLP.

EXPERTS

The consolidated financial statements as of December 31, 2016 and 2015 and for each of the three years in the period ended December 31, 2016 incorporated by reference in this prospectus have been so incorporated in reliance on the reports of BDO USA, LLP, an independent registered public accounting firm, (the report on the consolidated financial statements contains an explanatory paragraph regarding the Company's ability to continue as a going concern) incorporated herein by reference, given on the authority of said firm as experts in auditing and accounting.

INCORPORATION BY REFERENCE

The SEC allows us to incorporate by reference in this prospectus the information in other documents that we file with it, which means that we can disclose important information to you by referring you to those documents containing such information. This prospectus is part of a registration statement we filed with the SEC. You should rely on the information incorporated by reference in this prospectus and the registration statement. The information incorporated by reference is considered to be part of this prospectus and information we file later with the SEC will automatically update and supersede this information and information contained in documents filed earlier with the SEC. We incorporate by reference the documents listed below and any future filings made with the SEC under Section 13(a), 13(c), 14 or 15(d) of the Exchange Act prior to the termination of the offering; provided, that we are not incorporating by reference any documents or information deemed to have been furnished and not filed in accordance with SEC rules. The documents we are incorporating by reference are:

our Annual Report on Form 10-K for the year ended December 31, 2016, filed with the SEC on March 6, 2017;

our Quarterly Report on Form 10-Q for the quarter ended March 31, 2017, filed on May 10, 2017;

our Current Reports on Form 8-K filed with the SEC on January 5, 2017 (Items 1.01, 8.01 and 9.01), February 23, 2017 (Item 8.01), April 28, 2017 (Items 1.01, 1.02, 8.01 and 9.01), May 3, 2017 (Item 8.01) and May 10, 2017 (Items 1.01, 1.02, 2.03, 3.03, 8.01 and 9.01);

our definitive proxy statement on Schedule 14A, filed with the SEC on April 21, 2017; and

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the description of the Company's common stock contained in the Registration Statement on Form 8-A filed on April 7, 2014, and any amendments to each such Registration Statement filed subsequently thereto, including all amendments or reports filed for the purpose of updating such description.

We will furnish to you, on written or oral request, a copy of any or all of the documents that have been incorporated by reference, including exhibits to these documents. You may request a copy of these filings at no cost by writing or telephoning our Secretary at the following address and telephone number:

TransEnterix, Inc.

Attention: Joshua Weingard, Chief Legal Officer and Secretary

635 Davis Drive, Suite 300

Morrisville, NC 27560

Telephone No.: (919) 765-8400

WHERE YOU CAN FIND MORE INFORMATION

We have filed with the SEC a registration statement on Form S-3 under the Securities Act to register our securities being offered in this prospectus. This prospectus, which constitutes a part of the registration statement, does not contain all the information set forth in the registration statement or the exhibits and schedules filed thereto. For further information about us and our securities offered by this prospectus, we refer you to the registration statement and the exhibits and schedules filed with the registration statement. Any statement contained in this prospectus regarding the contents of any contract or any other document that is filed as an exhibit to the registration statement is not necessarily complete and each such statement is qualified in all respects by reference to the full text of such contract or other document filed as an exhibit to the registration statement. You may read and copy any materials we file with the SEC, including the registration statement, at the SEC's Public Reference Room at 100 F Street, NE, Washington, D.C. 20549, on official business days during the hours of 10:00 a.m. to 3:00 p.m. You may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. The SEC also maintains an Internet website that contains reports, proxy statements and other information about issuers, like us, that file electronically with the SEC. The address of that website is <http://www.sec.gov>. You may also inspect our SEC reports and other information at our website at www.transenterix.com. Information on or accessible through our website is not a part of this prospectus. We are subject to the information reporting requirements of the Exchange Act, and file reports, proxy statements and other information with the SEC. These reports, proxy statements and other information are available for inspection and copying at the public reference room and website of the SEC referred to above.

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Up to \$50,000,000

Common Stock

PROSPECTUS SUPPLEMENT

Stifel

August 31, 2017