

TRANSENERIX INC.
Form 424B5
December 20, 2016
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**Filed pursuant to Rule 424(b)(5)
Registration Number: 333-199998**

PROSPECTUS SUPPLEMENT

(To Prospectus dated June 22, 2016)

TransEnterix, Inc.

Up to \$25,000,000 of Common Stock and

Up to 464,972 Shares of Common Stock as Commitment Shares

This prospectus supplement relates to the issuance and sale of up to \$25,000,000 in shares of our common stock and up to an additional 464,972 shares of our common stock issued as commitment shares to Lincoln Park Capital Fund, LLC, or Lincoln Park, under a Purchase Agreement entered into on December 16, 2016, or the Purchase Agreement.

This prospectus supplement and the accompanying prospectus also cover the resale of these shares by Lincoln Park to the public.

Our common stock is listed on the NYSE MKT under the symbol TRXC. On December 15, 2016, the last reported sale price of our common stock on the NYSE MKT was \$1.43 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.

The date of this prospectus supplement is December 16, 2016.

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ABOUT THIS PROSPECTUS SUPPLEMENT

This prospectus supplement and the accompanying prospectus, dated December 16, 2016, are part of a shelf registration statement on Form S-3 (File No. 333-199998). 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 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.

TransEnterix, Inc.

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.

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. As a result, the Company has reprioritized its near-term regulatory efforts to focus on the European commercialization and U.S. 510(k) submission for 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.

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

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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.

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. 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 outstanding prior to this

offering: 115,059,244 shares of common stock.

Common stock offered:

(i) Up to an aggregate of \$25,000,000 of shares of our common stock that may be issued and sold from time to time, at our sole discretion, to Lincoln Park over the next 36 months in accordance with the Purchase Agreement, and resold by Lincoln Park from time to time;

(ii) 309,981 shares of common stock issued to Lincoln Park as the initial commitment shares in consideration for entering to the Purchase Agreement; and

(iii) Up to an additional 154,991 shares of common stock to be issued pro rata to Lincoln Park as additional commitment shares as up to \$25,000,000 of shares of our common stock is purchased by Lincoln Park pursuant to the Purchase Agreement.

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-12 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 MKT symbol:

TRXC.

The number of shares of common stock to be outstanding immediately after this offering is based on 115,059,244 shares of our common stock outstanding as of December 1, 2016, and excludes, as of such date:

12,551,499 shares of common stock issuable upon the exercise of outstanding options granted under our stock option plans at a weighted average exercise price of \$2.66 per share;

1,426,622 shares of common stock issuable upon the exercise of outstanding warrants at a weighted average exercise price of \$1.81 per share;

895,328 shares of common stock issuable upon vesting of outstanding restricted stock units; and

8,682,842 shares of common stock available for future issuance under our stock option plans.

Purchase Agreement with Lincoln Park

On December 16, 2016, we entered into a Purchase Agreement with Lincoln Park, which provides that, upon the terms and subject to the conditions and limitations set forth therein, we have the right to sell to Lincoln Park up to

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\$25,000,000 shares of our common stock at our discretion as described below. As consideration for entering into the Purchase Agreement, we agreed to issue to Lincoln Park a commitment fee of (i) 309,981 shares of our common stock upon entering into the Purchase Agreement as initial commitment shares, and (ii) up to an additional 154,991 shares of common stock to be issued pro rata as additional commitment shares as up to \$25,000,000 of shares of our common stock is purchased by Lincoln Park pursuant to the Purchase Agreement. Such shares are collectively referred to herein as the Commitment Shares. We are filing this prospectus supplement to cover the offer and sale of up to \$25,000,000 of shares of our common stock and the 464,972 Commitment Shares. This prospectus supplement and the accompanying prospectus also cover the resale of these shares by Lincoln Park to the public.

Under the Purchase Agreement, from time to time on any trading day we select, we have the right, in our discretion, subject to the conditions and limitations in the Purchase Agreement, to direct Lincoln Park to purchase up to 150,000 shares of our common stock, which amount is subject to certain increases in accordance with the terms of the Purchase Agreement. Each such purchase is referred to herein as a Regular Purchase. The purchase price for shares of common stock to be purchased by Lincoln Park will be the equal to lesser of (i) the lowest sale price on the purchase date, as reported by the NYSE MKT, or (ii) the arithmetic average of the three lowest closing sale prices for our common stock during the ten trading days prior to the purchase date. Lincoln Park's obligation under each Regular Purchase shall not exceed \$2,000,000, however, both the amount and frequency of the Regular Purchases can be increased upon the mutual agreement of us and Lincoln Park.

In addition to Regular Purchases, we may, in our discretion, direct Lincoln Park on each purchase date to make accelerated purchases of shares of our common stock on the following trading day in an amount up to the lesser of (i) 300% of the number of shares purchased pursuant to any Regular Purchase or (ii) 30% of the daily trading volume on the date of such accelerated purchase. The purchase price for the shares in an accelerated purchase will be equal to the lesser of: (i) the closing sale price for the common stock on the date of sale; and (ii) ninety-seven percent (97%) of the daily volume weighted average price of the common stock on the NYSE MKT on the date of sale. We cannot require Lincoln Park to make an accelerated purchase on a purchase date if our stock price is below \$1.50 per share. The Company and Lincoln Park may mutually agree to increase the amount of common stock sold to Lincoln Park on any accelerated purchase date.

There is no upper limit on the price per share that Lincoln Park must pay for our common stock under the Purchase Agreement, but in no event will shares be sold to Lincoln Park on a day when our closing price is less than the floor price of \$1.00 per share. There are no trading volume requirements or restrictions under the Purchase Agreement, but there are limitations on the number of shares we can direct Lincoln Park to purchase, as described below. We will control the timing and amount of any sales of our common stock to Lincoln Park.

In order to comply with our obligations under the applicable rules of the NYSE MKT, the Purchase Agreement limits our sales of shares of common stock to Lincoln Park and the issuance of Commitment Shares to 19.99% of our outstanding common stock (23,010,698 shares of our total outstanding common stock as of December 1, 2016), or the Exchange Cap, unless (i) stockholder approval is obtained to issue more than such 19.99% or (ii) the issuances and sales of common stock pursuant to the Purchase Agreement are deemed to be at a price equal to or in excess of the greater of book or market value of the Common Stock as calculated in accordance with the applicable rules of the NYSE MKT.

The Purchase Agreement also prohibits us from directing Lincoln Park to purchase any shares of common stock if those shares, when aggregated with all other shares of our common stock then beneficially owned by Lincoln Park and its affiliates, would result in Lincoln Park and its affiliates having beneficial ownership of more than 9.99% of the then total outstanding shares of our common stock, as calculated pursuant to Section 13(d) of the Securities Exchange Act of 1934, as amended, or the Exchange Act, and Rule 13d-3 promulgated thereunder.

The Purchase Agreement does not limit our ability to raise capital from other sources at our sole discretion, other than a covenant that that we will not enter into any Variable Rate Transaction as defined in the Purchase Agreement.

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Events of default under the Purchase Agreement include the following:

the effectiveness of the registration statement, of which this prospectus supplement and accompanying prospectus are a part, lapses for any reason (including, without limitation, the issuance of a stop order), or this prospectus supplement and accompanying prospectus are unavailable for sale by us or the resale by Lincoln Park of our common stock offered hereby, and such lapse or unavailability continues for a period of ten consecutive business days or for more than an aggregate of thirty business days in any 365-day period;

the suspension of our common stock from trading or the failure of our common stock to be listed on NYSE MKT for a period of one (1) business day;

the delisting of our common stock from NYSE MKT; provided, however, that our common stock is not immediately thereafter trading on the New York Stock Exchange, the NASDAQ Capital Market, the NASDAQ Global Market, the NASDAQ Global Select Market, the NYSE Arca, the OTC Bulletin Board or OTC Markets (or nationally recognized successor to any of the foregoing);

the failure for any reason by the transfer agent to issue the securities offered hereby to Lincoln Park within three business days after the applicable purchase date or accelerated purchase date (as applicable);

any breach of the representations and warranties or covenants contained in the Purchase Agreement or any related agreements with Lincoln Park if such breach would reasonably be expected to have a material adverse effect and such breach is not cured within five trading days;

our voluntary or involuntary participation or threatened participation in insolvency or bankruptcy proceedings by or against us, as more fully described in the Purchase Agreement;

if at any time we are not eligible to transfer our common stock electronically via DWAC; or

if at any time after the commencement date, the Exchange Cap is reached, to the extent it is applicable. Lincoln Park does not have the right to terminate the Purchase Agreement upon any of the events of default set forth above. During an event of default, all of which are outside the control of Lincoln Park, shares of our common stock cannot be sold by us or purchased by Lincoln Park under the terms of the Purchase Agreement.

This offering will terminate on the date that all shares offered by this prospectus supplement have been sold or, if earlier, the date that is 180 days after the expiration or termination of the Purchase Agreement. We have the right to terminate the Purchase Agreement at any time, without fee, penalty or cost.

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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 1A Risk Factors in our Quarterly Report on Form 10-Q for the period ended June 30, 2016, filed with the U.S. Securities and Exchange Commission, or SEC, on August 8, 2016, and Part I, Item 1A Risk Factors in our Annual Report on Form 10-K for the year ended December 31, 2015, filed with the SEC on March 3, 2016, both of which are 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 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.

Risks Related to This Offering

If we sell shares of our common stock under the Purchase Agreement, our existing stockholders will experience dilution and, as a result, our stock price may go down.

Pursuant to the Purchase Agreement, we have agreed to sell up to \$25,000,000 of shares of common stock to Lincoln Park over a 36-month period at our option and subject to certain limitations, and, as consideration for Lincoln Park's entering into the Purchase Agreement, to issue to Lincoln Park up to 464,972 Commitment Shares. Of the Commitment Shares, 309,981 were issued to Lincoln Park upon entering into the Purchase Agreement and up to an additional 154,991 shares of common stock will be issued pro rata to Lincoln Park as up to \$25,000,000 of shares of our common stock are purchased by Lincoln Park pursuant to the Purchase Agreement.

The sale of shares of our common stock pursuant to the Purchase Agreement will have a dilutive impact on our existing stockholders. The number of shares ultimately offered for sale by Lincoln Park under this prospectus supplement is dependent upon the number of shares we elect to sell to Lincoln Park under the Purchase Agreement. Lincoln Park may ultimately purchase all, some or none of the \$25,000,000 of common stock that, together with the Commitment Shares, is the subject of this prospectus supplement.

Lincoln Park may resell all, some or none of the shares we issue to it under the Purchase Agreement. Sales by Lincoln Park of shares acquired pursuant to the Purchase Agreement could cause the market price of our common stock to decline, which decline could be significant. The sale of a substantial number of shares of our common stock by Lincoln Park, or the anticipation of such sales, could make it more difficult for us to sell equity or equity-related securities in the future at a time and at a price that we might otherwise wish to effect sales.

For additional details on this financing arrangement, please refer to Plan of Distribution located elsewhere in this prospectus supplement.

In the event we are unable to maintain an effective registration statement with respect to all of the shares issuable pursuant to the Purchase Agreement, we may not be able to access the full amount available under the Purchase Agreement.

Our shelf registration statement of which this prospectus is a part, will expire in December 2017. If we do not file and maintain an effective registration statement for the resale of additional shares issuable pursuant to the Purchase

Agreement, we will be unable to access any additional funds that may be available under the Purchase Agreement. If we were unable to access a portion of the proceeds available to us under the Purchase Agreement, in the absence of any other financing sources, it would have a material adverse impact on our operations.

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We cannot issue more than 19.99% of the outstanding shares of our common stock as of December 1, 2016 to Lincoln Park under the Purchase Agreement, including the Commitment Shares, without stockholder approval.

We cannot issue more than the Exchange Cap as of December 1, 2016 to Lincoln Park under the Purchase Agreement, including the Commitment Shares, unless (i) stockholder approval is obtained to issue more than the Exchange Cap or (ii) the issuances and sales of common stock pursuant to the Purchase Agreement are deemed to be at a price equal to or in excess of the greater of book or market value of the Common Stock as calculated in accordance with the applicable rules of the NYSE MKT. Under the Purchase Agreement, we have committed not to exceed the Exchange Cap, to the extent applicable, without seeking and obtaining stockholder approval. Such process could be time-consuming and expensive, and we may not receive any requested stockholder approval. If we seek, but do not obtain, stockholder approval, the consequences could be material to our financial condition.

We do not currently intend to pay dividends on our common stock, and any return to investors is expected to come, if at all, only from potential increases in the price of our common stock.

At the present time, we intend to use available funds to finance our operations. Accordingly, while payments of dividends is within the discretion of our board of directors, no cash dividends on our common stock have been declared or paid by us, and we have no intention of paying any such dividends in the foreseeable future. Any return to investors is expected to come, if at all, only from potential increases in the price of our common stock.

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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 proceeds from this offering will vary depending on the number of shares that we offer and the offering price per share. We may receive up to \$25,000,000 over the term of the Purchase Agreement. We may sell fewer than all of the shares offered by this prospectus supplement, in which case our net offering proceeds will be less.

We currently intend to use the net proceeds of this offering for general corporate purposes, including working capital, product development and capital 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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PLAN OF DISTRIBUTION

Pursuant to this prospectus supplement and the accompanying prospectus, we are offering up to \$25,000,000 in shares of our common stock, as well as 464,972 shares of common stock as Commitment Shares, that have been or may be issued by us directly to Lincoln Park under the Purchase Agreement. This prospectus supplement and the accompanying prospectus also cover the resale of these shares by Lincoln Park to the public.

We entered into the Purchase Agreement with Lincoln Park on December 16, 2016. In consideration for entering into the Purchase Agreement, we are issuing 309,981 shares of our common stock to Lincoln Park as initial Commitment Shares, all of which are covered by this prospectus supplement. The Purchase Agreement also provides that, upon the terms and subject to the conditions set forth therein, Lincoln Park is committed to purchase an aggregate of up to \$25,000,000 of shares of our common stock over the 36-month term of the Purchase Agreement, and we are obligated to issue up to an additional 154,991 shares of common stock as additional Commitment Shares as the shares of our common stock are purchased.

The Purchase Agreement provides that, from time-to-time over the term of the Purchase Agreement, on any trading day, and at our sole discretion, we may require Lincoln Park to purchase up to 150,000 shares of our common stock as a Regular Purchase. Lincoln Park's obligation for each Regular Purchase cannot exceed \$2,000,000 without its agreement. The purchase price for the Regular Purchase shares shall be equal to the lesser of (i) the lowest sale price of our common stock on the purchase date, or (ii) the arithmetic average of the three lowest closing sale prices of our common stock during the ten trading days prior to the purchase date. Upon the mutual agreement of the Company and Lincoln Park an increase in the frequency or amount of our shares of common stock can occur.

In addition to Regular Purchases and provided that the closing price of our common stock is not below \$1.00 on a purchase date, we can, in our discretion, direct Lincoln Park on each purchase date to purchase on the following trading day, as an Accelerated Purchase, up to the lesser of (i) 300% of the number of shares purchased pursuant to such Regular Purchase or (ii) 30% of the trading volume on the Accelerated Purchase Date at a purchase price equal to the lesser of (i) the closing sale price on the accelerated purchase date, or (ii) 97% of the accelerated purchase date's daily volume weighted average price. The Company and Lincoln Park may mutually agree to increase the amount of our common stock sold to as an Accelerated Purchase.

The Purchase Agreement limits our sales of shares of common stock to Lincoln Park to the maximum number of shares of our common stock that we may issue without breaching our obligations under applicable rules of the NYSE MKT or obtaining stockholder approval under such rules, or the Exchange Cap, unless the issuances and sales of common stock pursuant to the Purchase Agreement are deemed to be at a price equal to or in excess of the greater of book or market value of the Common Stock as calculated in accordance with the applicable rules of the NYSE MKT.

The Purchase Agreement also prohibits us from directing Lincoln Park to purchase any shares of common stock if those shares, when aggregated with all other shares of our common stock then beneficially owned by Lincoln Park and its affiliates, would result in Lincoln Park and its affiliates having beneficial ownership, at any single point in time, of more than 9.99% of the then total outstanding shares of our common stock (as calculated pursuant to Section 13(d) of the Exchange Act and Rule 13d-3 thereunder).

Lincoln Park is an underwriter within the meaning of Section 2(a)(11) of the Securities Act. Lincoln Park has informed us that it will use an unaffiliated broker-dealer to effectuate all sales, if any, of the common stock that it may purchase from us pursuant to the Purchase Agreement. Such sales will be made on the NYSE MKT at prices and at terms then prevailing or at prices related to the then current market price. Each such unaffiliated broker-dealer will be an underwriter within the meaning of Section 2(a)(11) of the Securities Act. Lincoln Park has informed us that each

such broker-dealer will receive commissions from Lincoln Park that will not exceed customary brokerage commissions.

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We know of no existing arrangements between Lincoln Park and any other stockholder, broker, dealer, underwriter, or agent relating to the sale or distribution of the shares offered by this prospectus supplement. At the time a particular offer of shares is made, a prospectus supplement, if required, will be distributed that will set forth the names of any agents, underwriters, or dealers and any compensation from the selling stockholder, and any other required information.

We have entered into an agreement with Financial West Group (FWG), a registered broker-dealer and FINRA member, pursuant to which it has agreed to act as the placement agent in connection with the Purchase Agreement with Lincoln Park. FWG will receive \$15,000 as compensation in connection its services. We agreed to indemnify and hold harmless FWG against certain liabilities, including liabilities under the Securities Act. Following receipt of the placement fee, FWG will not be entitled to any additional compensation upon the closing of any subsequent stock sales effected pursuant to the purchase agreement, and shall not be deemed a distribution participant in connection with any subsequent sales of stock pursuant to this prospectus. We will pay all of the expenses incident to the registration, offering, and sale of the shares to Lincoln Park. We have paid Lincoln Park \$5,000 as reimbursement of its expenses in connection with entering into the Purchase Agreement, including its legal fees and due diligence expenses.

Lincoln Park represented to us that at no time prior to the date of the Purchase Agreement has Lincoln Park or its agents, representatives or affiliates engaged in or effected, in any manner whatsoever, directly or indirectly, any short sale (as such term is defined in Rule 200 of Regulation SHO of the Exchange Act) of our common stock or any hedging transaction. Lincoln Park agreed that during the term of the Purchase Agreement, it, its agents, representatives or affiliates will not enter into or effect, directly or indirectly, any of the foregoing transactions.

We have advised Lincoln Park that it is required to comply with Regulation M promulgated under the Exchange Act. With certain exceptions, Regulation M precludes the selling stockholder, any affiliated purchasers, and any broker-dealer or other person who participates in the distribution from bidding for or purchasing, or attempting to induce any person to bid for or purchase any security which is the subject of the distribution until the entire distribution is complete. Regulation M also prohibits any bids or purchases made in order to stabilize the price of a security in connection with the distribution of that security. All of the foregoing may affect the marketability of the shares offered by this prospectus supplement.

The transfer agent and registrar for our common stock is Continental Stock Transfer and Trust Company.

Our common stock is listed on the NYSE MKT under the symbol TRXC.

LEGAL MATTERS

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

EXPERTS

The consolidated financial statements as of December 31, 2015 and 2014, and for each of the three years in the period ended December 31, 2015, and management s assessment of the effectiveness of internal control over financial reporting as of December 31, 2015, 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 (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.

The carve-out financial statements of Senhance System (a carve-out of SOFAR S.p.A.) as of December 31, 2014 and 2013 and for the two years in the period ended December 31, 2014 incorporated by reference in this prospectus supplement have been so incorporated in reliance on the report of BDO S.p.A., an independent auditor, incorporated herein by reference, given on the authority of said firm as experts in auditing and accounting.

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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, 2015, filed with the SEC on March 3, 2016;

our Quarterly Reports on Form 10-Q for the quarter ended March 31, 2016, filed with the SEC on May 10, 2016, for the quarter ended June 30, 2016, filed with the SEC on August 5, 2016 and for the quarter ended September 30, 2016, filed with the SEC on November 9, 2016;

our Current Reports on Form 8-K, filed with the SEC on February 9, 2016 (Items 1.01, 8.01 and 9.01), February 10, 2016 (Items 8.01 and 9.01), February 11, 2016 (Item 8.01 and 9.01), March 8, 2016

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(Item 8.01), March 24, 2016 (Items 8.01 and 9.01), April 20, 2016 (Items 8.01 and 9.01), June 10, 2016 (Items 5.02, 5.07, and 9.01), June 27, 2016 (Item 8.01), August 1, 2016 (Items 8.01 and 9.01), and September 8, 2016 (Items 1.01 and 9.01); 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

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PROSPECTUS

\$150,000,000

Common Stock

Preferred Stock

Warrants

Debt Securities

Units

We are refreshing our existing shelf registration statement initially declared effective on December 19, 2014 so that 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 units consisting of any two or more of such securities. We may also offer securities upon the exercise of warrants. As of the date of this filing, we have sold \$81,200,000 of the securities registered hereunder in public offerings, leaving an aggregate of \$68,800,000 available for future offers and sales of the securities to be offered under this prospectus.

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 being registered for the account of the Company 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.

Our common stock is traded on the NYSE MKT under the symbol TRXC. On March 7, 2016, the closing price of our common stock was \$3.94 per share.

Investing in our securities involves a high degree of risk. See RISK FACTORS on page 6.

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 June 22, 2016.

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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 6 and our financial statements and the related notes incorporated by reference into this prospectus, before making an investment decision. In this prospectus, we refer to TransEnterix, Inc., a Delaware corporation, as TransEnterix, the Company, we, us or our.

Company 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. The Company is focused on the commercialization and further development of the ALF-X[®] Surgical Robotic System, or the ALF-X System, a multi-port robotic system that brings the advantages of robotic surgery to patients while enabling surgeons with innovative technology, and on the development and commercialization of the SurgiBot System, or SurgiBot System, a single-port, robotically enhanced laparoscopic surgical platform. The ALF-X 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 has been submitted for clearance to the U.S. Food and Drug Administration, or FDA, and is not yet available for sale in any market.

The ALF-X 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 3DHD vision technology. The ALF-X System also offers responsible economics to hospitals by offering robotic technology with reusable instruments thereby reducing additional costs per surgery when compared to laparoscopy.

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. The flexible nature of the SurgiBot System allows for multiple instruments to be introduced and deployed through a single site, thereby offering room for visualization and manipulation once inside the body. The SurgiBot System also allows for three-dimensional high definition, or 3DHD, vision technology. On June 1, 2015, we submitted our 510(k) application to the FDA for clearance of the SurgiBot System which was accepted for review. In August 2015, the FDA requested additional information related to the SurgiBot System 510(k) submission. We responded to that additional information request in February 2016. We anticipate that we will receive FDA clearance for the SurgiBot System by the end of the first quarter of 2016 and thereafter intend to launch sales of the SurgiBot System during the second quarter of 2016.

We believe that future advancements in robotic surgery will leverage three growth drivers: (1) build on the success of laparoscopy while addressing limitations; (2) develop innovative technology that addresses trade-offs; and (3) provide a compelling economic value to hospitals. The ALF-X System and the SurgiBot System are designed to meet those needs, and help expand robotic surgery to more diverse markets and a wide range of patients.

Our strategy is to focus our resources on the commercialization and further development of the ALF-X System and on the development and commercialization of the SurgiBot System.

From our inception, we devoted a substantial percentage of our resources to research and development and start-up activities, consisting primarily of product design and development, clinical studies, manufacturing, recruiting qualified personnel and raising capital.

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Since inception, we have been unprofitable. As of December 31, 2015, we had an accumulated deficit of approximately \$182.9 million. We expect to continue to invest in research and development and related clinical studies, and increase selling, general and administrative expenses as we grow. As a result, we will need to generate significant revenue in order to achieve profitability.

We operate in one business segment.

Recent Events

Acquisition of ALF- X Surgical Robotic System

On September 18, 2015, we entered into a Membership Interest Purchase Agreement, or the Purchase Agreement, with SOFAR S.p.A., or SOFAR, Vulcanos S.r.l., or Vulcanos, as the acquired company, and TransEnterix International, Inc., or TransEnterix International, a wholly owned subsidiary of the Company. The closing of the transactions occurred on September 21, 2015, or the Closing Date, pursuant to which we acquired all of the membership interests of Vulcanos from SOFAR, or the ALF-X Acquisition, and changed the name of Vulcanos to TransEnterix Italia S.r.l, or TransEnterix Italia. The acquisition included all of the assets, employees and contracts related to the advanced robotic system for minimally invasive laparoscopic surgery known as the ALF-X System.

Under the terms of the Purchase Agreement, the consideration consisted of the issuance of 15,543,413 shares of our common stock, or the Securities Consideration, and approximately \$25 million U.S. Dollars and 27.5 million Euro in cash consideration, or the Cash Consideration. The Securities Consideration was issued in full at the closing of the ALF-X Acquisition; the Cash Consideration was or will be paid in four tranches, as follows:

- (1) \$25 million of the Cash Consideration was paid at closing;
- (2) The second tranche of the Cash Consideration, or the Second Tranche, of 10 million, shall be payable after the achievement of both of the following milestones (i) the earlier of approval from the FDA for the ALF-X System or December 31, 2016, and (ii) the Company having cash on hand of at least \$50 million, or successfully completing a financing, raising at least \$50 million in gross proceeds; with payment of simple interest at a rate of 9.0% per annum between the achievement of the first milestone event and the payment date;
- (3) The third tranche of the Cash Consideration, or the Third Tranche, of 15 million shall be payable upon achievement of trailing revenues from sales or services contracts of the ALF-X System of at least 25 million over a calendar quarter; and
- (4) The fourth tranche of the Cash Consideration of 2.5 million shall be payable by December 31, 2016 as reimbursement for certain debt payments made by SOFAR under an existing SOFAR loan agreement.

The Third Tranche will be payable even if the Second Tranche is not then payable. In addition, the Second Tranche and Third Tranche payments will be accelerated in the event that (i) the Company or TransEnterix International is acquired, (ii) the Company significantly reduces or suspends selling efforts of the ALF-X System, or (iii) the Company acquires a business that offers alternative products that are directly competitive with the ALF-X System.

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Under the Purchase Agreement, 10% of the Securities Consideration is being held in escrow to support SOFAR's representations and warranties under the Purchase Agreement. The Company and SOFAR also entered into a Security Agreement, which provides that 10% of the membership interests of TransEnterix Italia have a lien placed thereon by and in favor of SOFAR to support the Company's representations and warranties under the Purchase Agreement. The escrow period and security interest period are each twenty-four months after the closing of the ALF-X Acquisition.

The Purchase Agreement contains customary representations and warranties of the parties and the parties have customary indemnification obligations, which are subject to certain limitations described further in the Purchase Agreement.

In connection with the ALF-X Acquisition, we also entered into a Registration Rights Agreement, dated as of September 21, 2015, with SOFAR, pursuant to which we agreed to register the Securities Consideration shares for resale following the end of the lock-up periods described below.

In connection with the ALF-X Acquisition, SOFAR entered into a Lock-Up Agreement with the Company pursuant to which SOFAR agreed, subject to certain exceptions, not to sell, transfer or otherwise convey any of the Securities Consideration for one year following the Closing Date. The Lock-Up Agreement provides that SOFAR may sell, transfer or convey: (i) no more than 50% of the Securities Consideration during the period commencing on the one-year anniversary of the Closing Date and ending on the eighteen-month anniversary of the Closing Date; and (ii) no more than 75% of the Securities Consideration during the period commencing on the eighteen-month anniversary of the Closing Date and ending on the two-year anniversary of the Closing Date. The restrictions on transfer contained in the Lock-Up Agreement cease to apply to the Securities Consideration following the second anniversary of the Closing Date, or earlier upon certain other conditions.

Public Offerings under this Shelf Registration Statement

On February 20, 2015, we entered into a Controlled Equity OfferingSM Sales Agreement, or the 2015 Sales Agreement, with Cantor Fitzgerald & Co., or Cantor, as sales agent, pursuant to which we offered and sold, through Cantor, \$25 million in shares of common stock in an at-the-market offering, or the 2015 ATM Offering. As of February 12, 2016, the 2015 ATM Offering has been fully sold with 7,724,488 shares issued. The common stock was offered and sold pursuant to the shelf registration statement on Form S-3 (File No. 333-199998) of which this prospectus forms a part.

On June 11, 2015, we sold 16,666,667 shares of common stock at a public offering price of \$3.00 per share for aggregate gross proceeds of \$50.0 million in an underwritten firm commitment public offering. Net proceeds after issuance costs were \$46.4 million. We granted the underwriters an option, exercisable for 30 days, to purchase up to an additional 2,500,000 shares of common stock. The common stock was offered and sold pursuant to the shelf registration statement on Form S-3 (File No. 333-199998) of which this prospectus forms a part. The closing of the public offering occurred on June 17, 2015. On July 10, 2015, the underwriters exercised a portion of their option and acquired an additional 2,075,000 shares at the public offering price of \$3.00 per share for aggregate additional gross proceeds of \$6.2 million. Net proceeds after issuance costs were \$5.8 million. The purchase of the option shares closed on July 15, 2015. Total proceeds (including the option) were \$52.2 million, net of issuance costs of \$4.0 million.

2014 Reverse Stock Split

On March 31, 2014, we effectuated a reverse stock split of our issued and outstanding shares of common stock at a ratio of 1 for 5, or the Reverse Stock Split. As a result of the Reverse Stock Split, the Company's issued and

outstanding stock decreased from 244,276,923 to 48,855,255 shares of common stock, all with a par value of \$0.001. All information in this prospectus related to common stock, stock options, RSUs, warrants and earnings per share for prior periods has been retroactively adjusted in this prospectus to give effect to the Reverse Stock Split, except for the reference to the Merger Exchange Ratio of 1.1533 described below.

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2013 Merger

On September 3, 2013, TransEnterix Surgical, Inc. a Delaware corporation, or TransEnterix Surgical, and SafeStitch Medical, Inc., a Delaware corporation, or SafeStitch, consummated a merger transaction whereby TransEnterix Surgical merged with a merger subsidiary of SafeStitch, with TransEnterix Surgical as the surviving entity in the merger, or the Merger. As a result of the Merger, TransEnterix Surgical became a wholly owned subsidiary of SafeStitch.

Pursuant to the merger agreement, each share of TransEnterix Surgical's capital stock issued and outstanding immediately preceding the Merger was converted into the right to receive 1.1533 shares, or the Exchange Ratio, of SafeStitch's common stock, par value \$0.001 per share, other than those shares of TransEnterix Surgical's common stock held by non-accredited investors, which shares were instead converted into the right to receive an amount in cash per share of SafeStitch common stock equal to \$1.08, without interest, which was the volume-weighted average price of a share of SafeStitch common stock on the OTCBB for the 60-trading day period ended on August 30, 2013 (one business day prior to the effective date of the Merger). Additionally, pursuant to the merger agreement, upon consummation of the Merger, SafeStitch assumed all of TransEnterix Surgical's options and warrants issued and outstanding immediately prior to the Merger at the same Exchange Ratio.

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. 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 and does not constitute a part of this prospectus.

As used herein, the terms "Company," "we" or "us" each refers to both the combination of SafeStitch and TransEnterix Surgical after giving effect to the Merger, and the addition of TransEnterix International and TransEnterix Italia after giving effect to the ALF-X Acquisition, unless the context otherwise provides. The term "SafeStitch" refers to the historic business of SafeStitch Medical, Inc. prior to the Merger, and the term "TransEnterix Surgical" refers to the historic business of TransEnterix Surgical, Inc. prior to the Merger.

ABOUT THIS PROSPECTUS

This prospectus is part of a "shelf" registration statement that we filed with the U.S. Securities and Exchange Commission, or SEC. By using a shelf registration statement, after the date of this prospectus 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 \$68,800,000 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."

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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.

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 below 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.

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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. We may also use a portion of the net proceeds that we receive to fund commercialization activities or 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 principal (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 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.

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.

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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 7, 2016, there were 106,609,302 shares outstanding and as of December 31, 2015, there were 10,149,941 shares of our common stock reserved for the exercise of outstanding stock options, warrants and restricted stock units. There were approximately 248 record holders as of February 29, 2016. 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.

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.

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Anti-Takeover Effects of Certain Provisions of our Certificate of Incorporation, our By-Laws 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 us. 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.

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.

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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.

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;

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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;

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;

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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.

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.

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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.

Payments on a global security would be made to the depositary 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 depositary 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 depositary 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.

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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.

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.

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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;

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;

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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 antidilution 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, dated September 26, 2014, as amended, among the Company and its U.S.-based operating subsidiaries, including TransEnterix Surgical, and Oxford Finance LLC and Silicon Valley Bank, we issued warrants to purchase an aggregate of 38,324 shares of common stock to the lenders on September 26, 2014 and warrants to purchase an additional 112,903 shares of common stock on August 18, 2015 in connection with an amendment to the Loan Agreement. These warrants were in addition to warrants to purchase an aggregate of 279,588 shares of common stock issued to the lenders under the original loan and security agreement, as amended. Pursuant to a stock purchase agreement dated March 22, 2013 among SafeStitch and the investors executing such agreement, SafeStitch issued warrants to acquire 1,209,600 shares of common stock. As of February 29, 2016, 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.

RATIO OF EARNINGS TO FIXED CHARGES

If we offer debt securities and/or shares of preferred stock under this prospectus, then we will, if required at that time, 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.

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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, 2015 and 2014 and for each of the three years in the period ended December 31, 2015 and management's assessment of the effectiveness of internal control over financial reporting as of December 31, 2015 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.

The carve-out financial statements of ALF-X System (a carve-out of SOFAR S.p.A.) as of December 31, 2014 and 2013 and for the two years in the period ended December 31, 2014 incorporated by reference in this prospectus have been so incorporated in reliance on the report of BDO S.p.A., an independent auditor, 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, 2015, filed on March 3, 2016;

our Current Reports on Form 8-K filed on February 9, 2016 (Items 1.01, 8.01 and 9.01), on February 10, 2016 (Items 8.01 and 9.01) and on February 11, 2016 (Items 8.01 and 9.01), and our Current Report on Form 8-K/A filed on December 4, 2015 (Item 9.01); and

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

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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 \$25,000,000 of Common Stock and
Up to 464,972 Shares of Common Stock as Commitment Shares**

PROSPECTUS SUPPLEMENT

December 16, 2016