UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM S-3 REGISTRATION STATEMENT

UNDER THE SECURITIES ACT OF 1933

TRANSENTERIX, INC.

(Exact Name of Registrant as Specified in Its Charter)

Delaware (State or Other Jurisdiction of Incorporation or Organization) 11-2962080 (I.R.S. Employer Identification Number)

Morrisville, NC 27560
(919) 765-8400
(Address, Including Zip Code, and Telephone Number, Including Area Code, of Registrant's Principal Executive Offices)

635 Davis Drive, Suite 300

Joseph P. Slattery EVP and Chief Financial Officer 635 Davis Drive, Suite 300 Morrisville, NC 27560 (919) 765-8400

(Name, Address, Including Zip Code, and Telephone Number, Including Area Code, of Agent For Service)

With a copy to:

Mary J. Mullany, Esquire Ballard Spahr LLP 1735 Market Street, 51st Floor Philadelphia, PA 19103 (215) 864-8631

| Approximate date of co | ommencement of proposed | sale to the public: From t | ime to time after this registration s | tatement becomes effective. |
|------------------------|-------------------------|----------------------------|---------------------------------------|-----------------------------|
| | | | | |

If the only securities being registered on this form are being offered pursuant to dividend or interest reinvestment plans, please check the following box. \Box

If any of the securities being registered on this form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box.

If this form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. \Box

If this form is a registration statement filed pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box.

If this form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box. \Box

| 3 | nark whether the registrant is a large accelerated filer," "accelerated filer," and "sr | - | | | 1 0 1 3 | • |
|---------------------------------|---|----------------------------------|---|--|------------------------------|-------------|
| Large Accelerated Filer | | | | Accelerated Fi | ler | \boxtimes |
| Non-Accelerated Filer | | | | Smaller Report | ting Company | |
| CALCULATION OF REGISTRATION FEE | | | | | | |
| | 33.2.2.3.2.3.2.3.2.3.2.3.2.3.2.3.2.3.2. | <u> </u> | Proposed | Proposed | <u> </u> | |
| Title o | f Securities to be Registered | Amount to be Registered(1) | Maximum Offering Price Per Security | Maximum Aggregate Offering Price | Amount of Registration Fe | ee |
| Common Stock, par value | \$0.001 per share to be offered for resale | | | | | |

(1) These securities are being registered hereunder for resale by the investors identified herein. In addition, pursuant to Rule 416 under the Securities Act, the securities registered hereunder include such indeterminate number of securities as may be issuable with respect to the securities being registered hereunder as a result of stock splits, stock dividends or similar transactions.

42,759,127

\$3.58

\$153,077,675(2)

by the investors

Estimated solely for the purpose of calculating the registration fee in accordance with Rule 457(c) under the Securities Act of 1933, as amended (the "Securities Act"), based upon the average of the high and low sales price of our common stock as reported on the NYSE MKT on February 8, 2016.

THE REGISTRANT HEREBY AMENDS THIS REGISTRATION STATEMENT ON SUCH DATE OR DATES AS MAY BE NECESSARY TO DELAY ITS EFFECTIVE DATE UNTIL THE REGISTRANT SHALL FILE A FURTHER AMENDMENT WHICH SPECIFICALLY STATES THAT THIS REGISTRATION STATEMENT SHALL THEREAFTER BECOME EFFECTIVE IN ACCORDANCE WITH SECTION 8(a) OF THE SECURITIES ACT OF 1933 OR UNTIL THE REGISTRATION STATEMENT SHALL BECOME EFFECTIVE ON SUCH DATE AS THE COMMISSION, ACTING PURSUANT TO SAID SECTION 8(a), MAY DETERMINE.

The information in this prospectus is not complete and may be changed. The investors may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell these securities and it is not soliciting an offer to buy these securities in any state where the offer or sale is not permitted.

Subject to Completion, Dated February 11, 2016

PROSPECTUS



42,759,127 shares of Common Stock

This prospectus relates to the offer and sale, from time to time, of up to 42,759,127 shares of our common stock, par value \$0.001 per share, held by the investors named on pages 7-8 of this prospectus or in a prospectus supplement.

The shares of common stock registered for the account of the investors may be sold from time to time by the investors directly or through one or more broker-dealers, in one or more transactions on the NYSE MKT, in the over-the-counter market, in negotiated transactions or otherwise, at prices related to the prevailing market prices or at negotiated prices, all as more fully described in the section entitled "Plan of Distribution" beginning on page 9 of this prospectus. We will not receive any proceeds from the sale of these shares of common stock offered by the investors. All costs and expenses incurred in connection with the registration under the Securities Act of 1933, as amended, or Securities Act, of the offering made hereby will be paid by us, other than any brokerage fees and commissions, fees and disbursements of legal counsel for the investors and stock transfer and other taxes attributable to the sale of the shares, which will be paid by the investors.

We are registering the offer and sale of these shares pursuant to certain registration rights granted to the investors. The registration of these shares of common stock does not necessarily mean that any of the shares will be offered or sold by the investors.

Our common stock is traded on the NYSE MKT under the symbol "TRXC." On February 8, 2016, the closing price of our common stock was \$3.61 per share.

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

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

TABLE OF CONTENTS

| Page |
|------|
| 1 |
| 6 |
| 6 |
| 6 |
| 7 |
| 7 |
| 9 |
| 10 |
| 12 |
| 12 |
| 13 |
| 14 |
| |

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, and the investors have not, authorized anyone to provide you with any different information. The investors are offering to sell our securities, and seeking offers to buy, only in jurisdictions where offers and sales are permitted.

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."

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 SurgiBotTM 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.

Since inception, we have been unprofitable. As of September 30, 2015, we had an accumulated deficit of approximately \$169.3 million.

We expect to continue to invest in research and development, seeking regulatory approvals 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 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, up to \$25 million in shares of common stock in an at-the-market offering, or the 2015 ATM Offering. As of February 11, 2016, the 2015 ATM Offering has been fully sold with 7,724,448 shares issued. On February 9, 2016, we entered into a new "at-the-market" facility with Cantor under which we can offer and sell, through Cantor, up to approximately \$43.6 million in shares of common stock. We have no obligation to sell any shares under this new facility.

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.

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 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.

The Private Financing

On September 3, 2013, we consummated a private placement transaction, or the 2013 Private Financing, with certain of our investors who were accredited investors.

In the 2013 Private Financing, we sold shares of our Series B Convertible Preferred Stock to provide funding to support our operations following the merger of TransEnterix Surgical, Inc. with and into a SafeStitch merger subsidiary pursuant to which TransEnterix Surgical, Inc. became a wholly owned subsidiary of SafeStitch. After the merger, SafeStitch changed its name to TransEnterix, Inc. Pursuant to a securities purchase agreement dated September 3, 2013, an aggregate of 7,544,704.4 shares of our Series B Preferred Stock were sold in the 2013 Private Financing for a purchase price of \$4.00 per share of Series B Preferred Stock. The purchase price was paid in cash, cancellation of indebtedness of TransEnterix Surgical or a combination of cash and cancellation of indebtedness. Each share of Series B Preferred Stock was convertible into two (2) shares of our common stock. In accordance with the securities purchase agreement, we sold an additional 25,000 shares of Series B Preferred Stock on September 17, 2013. Proceeds from the sale of the Series B Preferred Stock shares, net of issuance costs, were \$28.2 million.

On December 6, 2013, we filed an Amended and Restated Certificate of Incorporation to change our name to TransEnterix, Inc. and to increase the authorized shares of our common stock from 225,000,000 to 750,000,000. In accordance with the Certificate of Designation that defines the terms of the Series B Preferred Stock, upon such filing each outstanding share of Series B Preferred Stock was automatically converted into two (2) shares of our common stock. An aggregate of 15,139,409 shares of common stock were issued in the conversion of the Series B Preferred Stock on December 6, 2013.

In connection with the closing of the 2013 Private Financing, we entered into a registration rights agreement with the investors participating in the 2013 Private Financing, or the 2013 Registration Rights Agreement. Such investors are also parties to voting and lock-up agreements with us, pursuant to which they agreed to lock up the securities acquired in the 2013 Private Financing over a two year period. Fifty percent of the securities subject to the lock-ups held by the investors were released from those

restrictions on September 3, 2014. We registered some of the shares held by the holders of such registration rights in a shelf registration statement on Form S-3 (File No. 333-199998) which was declared effective by the SEC on December 19, 2014. Beginning on March 3, 2015, the investors were entitled to sell up to 75% of the securities subject to the lock-up agreement and the lock-up agreement terminated on September 3, 2015 at which point all of the securities subject to the lock-up agreement became eligible for sale. We filed the registration statement, of which this prospectus forms a part, pursuant to the terms of the 2013 Registration Rights Agreement to register for resale all of the registrable securities held by the investors in the 2013 Private Financing. Once the registration statement of which this prospectus forms a part is declared effective by the SEC, we intend to file a post-effective amendment to the shelf registration statement on Form S-3 (File No. 333-199998) to remove the securities held by the investors under that registration statement.

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, our 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 related to common stock, stock options, RSUs, warrants and earnings per share for prior periods has been retroactively adjusted to give effect to the Reverse Stock Split.

June 2015 Public Offering

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 our shelf registration statement on Form S-3 (File No. 333-199998) registering an aggregate of \$100 million of our designated securities, or the November 2014 Shelf Registration Statement was declared effective by the SEC on December 19, 2014. 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.

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.

ABOUT THIS PROSPECTUS

This prospectus is part of a resale registration statement that we filed with the U.S. Securities and Exchange Commission, or SEC. By using a resale registration statement, the investors identified herein may, from time to time, offer and sell up to an aggregate of 42,759,127 shares of our common stock in one or more offerings. We will not receive any of the proceeds from the sales. We may add, update or change in a prospectus supplement any of the information contained in this prospectus or the documents incorporated by reference.

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

You should rely only on the information contained in this prospectus and in any prospectus supplement (including in any documents incorporated by reference herein or therein). We and the investors have not authorized anyone to provide you with any different information. The investors 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," "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 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.

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 Annual Report on Form 10-K or in our most recent Quarterly Report on Form 10-Q, as they may be amended, 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

We are registering the shares of common stock for resale by the investors. We will not receive any proceeds from the sale of common stock by the investors.

SELLING STOCKHOLDERS

As described in the prospectus summary, the investors acquired shares of our common stock in the 2013 Private Financing. They are also parties to the 2013 Registration Rights Agreement we entered into with the investors in the 2013 Private Financing. We are registering these shares as provided under the 2013 Registration Rights Agreement.

The following table sets forth information as of February 1, 2016, and includes the number of shares of our common stock beneficially owned by the investors prior to the offering, the number of shares of common stock offered by the investors, and the number of shares of common stock that will be owned by the investors upon completion of the offering or offerings pursuant to this prospectus, assuming the investors sell all of the shares of common stock offered hereby. Only those investors listed below or their transferees, pledgees, donees, assignees, distributees, successors and others who later come to hold any of the investors' interest may offer and sell the common stock pursuant to this prospectus and any accompanying prospectus supplement. The investors may offer the shares listed in the table below for sale pursuant to this prospectus and any accompanying prospectus supplement from time to time. Accordingly, no estimate can be given as to the shares of common stock that the investors will hold upon consummation of any such sales. Beneficial ownership is determined in accordance with the rules of the SEC. There are no material relationships between the investors and us other than as disclosed below.

| N. COM. C. D. H. | Benefici Ownersh Prior to t Offerin | nip his g | Shares Being | Benefic Owners After this O | hip ffering |
|--|--|-----------------|-----------------|-----------------------------------|----------------|
| Name of Selling Stockholder | Number | Percent | Offered | Number | Percent |
| Aisling Capital III, LP (1) | 8,335,819 | 8.3% | 7,298,052 | 1,037,767 | 1.0% |
| Yehuda Ben-Horin and Aviva Ben-Horin JT TEN | 8,600 | * | 8,600 | 0 | * |
| Chung Chia Company Limited (2) | 1,548,280 | 1.5% | 1,548,280 | 0 | * |
| Frost Gamma Investments Trust (2)(3) | 4,299,209 | 4.3% | 4,299,209 | 0 | * |
| Jane H. Hsiao (2)(4) | 3,718,286 | 3.7% | 3,562,536 | 155,750 | * |
| Hsu Gamma Investments LP (4) | 1,257,694 | 1.3% | 1,257,694 | 0 | * |
| International Biotechnology Trust PLC | 889,082 | * | 889,082 | 0 | * |
| Intersouth Partners VII, LP | 3,938,981 | 3.9% | 3,523,198 | 415,783 | * |
| KFBSF Private Equity Fund I, L.P. | 33,225 | * | 33,225 | 0 | * |
| KFBSF Private Equity Fund II, L.P. | 120,178 | * | 120,178 | 0 | * |
| Kwang Shun Company Limited (2) | 1,520,000 | 1.5% | 1,520,000 | 0 | * |
| Donald L. Laurie | 149,206 | * | 129,206 | 20,000 | * |
| Joseph Levy Revocable Trust | 57,500 | * | 57,500 | 0 | * |
| Levy Family Trust FBO Shana Levy | 10,000 | * | 10,000 | 0 | * |
| Levy Family Trust FBO Sion Levy | 10,000 | * | 10,000 | 0 | * |
| Jacqueline Simkin Revocable Trust | 163,953 | * | 158,953 | 5,000 | * |
| Joseph P. Slattery (5) | 542,164 | * | 50,000 | 492,164 | * |
| StepStone-SYN Investments L.L.L.P. | 3,434,381 | 3.4% | 3,434,381 | 0 | * |
| Stepstone Pioneer Capital II, LP | 29,524 | * | 29,524 | 0 | * |
| Stepstone Pioneer Capital Buyout Fund II, LP | 16,607 | * | 16,607 | 0 | * |
| SV Life Sciences Fund IV, L.P. (6) | 7,338,352 | 7.3% | 6,609,057 | 729,295 | * |

| | Beneficial Ownership Prior to this Shares Offering Being | | | Beneficial Ownership After this Offering | |
|---|---|---------|-----------|--|---------|
| Name of Selling Stockholder | Number | Percent | Offered | Number | Percent |
| SV Life Sciences Fund IV Strategic Partners, L.P. (6) | 208,340 | * | 187,635 | 20,705 | * |
| Synergy Life Science Partners, L.P. (7) | 5,318,969 | 5.3% | 5,097,519 | 221,450 | * |
| Synecor LLC(7) | 392,122 | * | 392,122 | 0 | * |
| Quaker BioVentures II, L.P. | 2,516,569 | 2.5% | 2,516,569 | 0 | * |

- * Holds less than one percent (1%).
- (1) These shares of common stock are owned directly by Aisling Capital III, LP ("Aisling") and held indirectly by Aisling Capital Partners III, LP ("Aisling GP"), as general partner of Aisling, Aisling Capital Partners III LLC ("Aisling Partners"), as general partner of Aisling GP, and each of the individual managing members of Aisling Partners. The individual managing members (collectively, the "Managers") of Aisling Partners are Dennis Purcell, Dr. Andrew Schiff and Steve Elms. Aisling GP, Aisling Partners and the Managers share voting and dispositive power over the shares directly held by Aisling. Each of Aisling GP, Aisling Partners and the Managers may be deemed to be the beneficial owner of the securities listed above only to the extent of its pecuniary interest therein. The above information shall not be deemed an admission that any of Aisling GP, Aisling Partners or any of the Managers is the beneficial owner of any securities reported herein in excess of such amount.
- (2) The shares being offered include shares of common stock underlying warrants to purchase such shares.
- (3) Dr. Phillip Frost, the trustee and control person of Frost Gamma Investments Trust, was a director of TransEnterix from September 2013 until June 2014.
- (4) Jane Hsiao is a director of TransEnterix. Dr. Hsiao is the general partner of Hsu Gamma Investments Trust. The shares beneficially owned by Dr. Hsiao prior to this offering include shares underlying warrants to purchase an aggregate of 400,000 shares of common stock and options to purchase an aggregate of 155,750 shares of common stock which are held by Dr. Hsiao, but do not include shares held by Hsu Gamma Investments Trust. The shares beneficially owned by Hsu Gamma Investments Trust prior to this offering do not include shares owned directly by Dr. Hsiao, or shares underlying warrants to purchase an aggregate of 400,000 shares of common stock and options to purchase an aggregate of 155,750 shares of common stock which are held by Dr. Hsiao.
- (5) Joseph P. Slattery is Executive Vice President and Chief Financial Officer of TransEnterix. The shares beneficially owned prior to this offering include restricted stock units to acquire an aggregate of 20,000 shares of common stock and options to purchase an aggregate of 407,077 shares of common stock which are held by Mr. Slattery.
- (6) These shares of common stock are owned directly by SV Life Sciences Fund IV, L.P. ("SVLSF IV LP") and SV Life Sciences Fund IV Strategic Partners, L.P. ("SVLSF IV SPP") respectively. SV Life Sciences Fund IV (GP), LP ("SVLSF IV GP") is the general partner of SVLSF IV LP and SVLSF IV SPP. The general partner of SVLSF IV GP is SVLSF IV, LLC. The members of the investment committee of SVLSF IV, LLC are Kate Bingham, James Garvey, Eugene D. Hill, III, David Milne and Michael Ross. SVLSF IV, LLC and each of these individuals may be deemed to share voting, dispositive and investment power over the shares held of record by SVLSF IV LP and SVLSF IV SPP. David Milne, a member of the SVLSF IV, LLC investment committee, is also a member of our board of directors. Paul LaViolette, a member of our board of directors, is also a member of SVLSF IV GP. Each of the individuals and entities listed above expressly disclaims beneficial ownership of the securities listed above except to the extent of any pecuniary interest therein.
- (7) The shares beneficially owned by Synergy Life Science Partners, L.P. prior to this offering include 392,122 shares held by Synecor LLC. William N. Starling, Jr., a director of TransEnterix, is a managing director of Synergy Life Science Partners, L.P.

PLAN OF DISTRIBUTION

The investors and any transferees, pledgees, donees, assignees, distributees or other successors in interest to the investors may, from time to time, sell, transfer or otherwise dispose of any or all of their shares of our common stock covered by this prospectus on the NYSE MKT or any other stock exchange, market or trading facility on which the shares are traded or in private transactions. These dispositions may be at fixed prices, at prevailing market prices at the time of sale, at prices related to the prevailing market price, at varying prices determined at the time of sale, or at negotiated prices. The investors may use any one or more of the following methods when disposing of shares:

- ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;
- block trades in which the broker-dealer will attempt to sell the shares as agent but may position and resell a portion of the block as principal to facilitate the transaction;
- purchases by a broker-dealer as principal and resale by the broker-dealer for its account;
- an exchange distribution in accordance with the rules of the applicable exchange;
- · privately negotiated transactions;
- · settlement of short sales entered into after the effective date of the registration statement of which this prospectus is a part;
- broker-dealers may agree with the investors to sell a specified number of such shares at a stipulated price per share;
- · through the writing or settlement of options or other hedging transactions, whether through an options exchange or otherwise;
- a combination of any such methods of sale; or
- any other method permitted pursuant to applicable law (including underwritten transactions).

The investors may also sell shares under Rule 144 under the Securities Act, if available, rather than under this prospectus.

The investors have informed us that they do not have any agreement or understanding, directly or indirectly, with any person to distribute the shares covered under this prospectus. If the investors notify us that a material arrangement has been entered into with a broker-dealer for the sale of shares through a block trade, secondary distribution or a purchase by a broker or dealer, we may be required to file a prospectus supplement pursuant to the applicable rules promulgated under the Securities Act.

Broker-dealers, underwriters and agents engaged by the investors may arrange for other broker-dealers, underwriters or agents to participate in sales. Broker-dealers, underwriters or agents may receive commissions, discounts or concessions from the investors (or, if any broker-dealer acts as agent for the purchaser of shares, from the purchaser) in amounts to be negotiated, but, except as set forth in a supplement to this prospectus, in the case of an agency transaction not in excess of a customary brokerage commission in compliance with FINRA rules.

In connection with the sale of the common stock or interests therein, the investors may enter into hedging transactions with broker-dealers or other financial institutions, which may in turn engage in short sales of the common stock in the course of hedging the positions they assume. The investors may also sell shares of the common stock short and deliver these securities to close out their short positions, or loan or pledge the common stock to broker-dealers that in turn may sell these securities. The investors may also enter into option or other transactions with broker-dealers or other financial institutions or the creation of one or more derivative securities which require the delivery to such broker-dealer or other financial institution of shares offered by this prospectus, which shares such broker-dealer or other financial institution may resell pursuant to this prospectus (as supplemented or amended to reflect such transaction).

The investors and any broker-dealers, underwriters or agents that are involved in selling the shares may be deemed to be "underwriters" within the meaning of the Securities Act in connection with such sales. In such event, any commissions received by such broker-dealers, underwriters or agents and any profit on the resale of the shares purchased by them may be deemed to be underwriting commissions or discounts under the Securities Act. If an investor qualifies as an "underwriter," it will be subject to the prospectus delivery requirements of Section 5(b)(2) of the Securities Act.

All costs and expenses incurred in connection with the registration under the Securities Act of the offering made hereby will be paid by us, other than any brokerage fees and commissions, fees and disbursements of legal counsel for the investors and stock transfer and other taxes attributable to the sale of the shares, which will be paid by the investors.

Because the investors may be deemed to be "underwriters" within the meaning of the Securities Act, they will be subject to the prospectus delivery requirements of the Securities Act including Rule 172 thereunder. In addition, any securities covered by this prospectus which qualify for sale pursuant to Rule 144 under the Securities Act may be sold under Rule 144 rather than under this prospectus.

To the extent required, the shares of our common stock to be sold; the names of the investors; the respective purchase prices and public offering prices; the names of any agents, dealers or underwriters; and any applicable commissions or discounts with respect to a particular offer will be set forth in an accompanying prospectus supplement or, if appropriate, a post-effective amendment to the registration statement that includes this prospectus. The resale shares will be sold only through registered or licensed brokers or dealers if required under applicable state securities laws. In addition, in certain states, the resale shares may not be sold unless they have been registered or qualified for sale in the applicable state or an exemption from the registration or qualification requirement is available and is complied with.

Under applicable rules and regulations under the Exchange Act, any person engaged in the distribution of the resale shares may not simultaneously engage in market making activities with respect to the common stock for the applicable restricted period, as defined in Regulation M, prior to the commencement of the distribution. In addition, the investors will be subject to applicable provisions of the Exchange Act and the rules and regulations thereunder, including Regulation M, which may limit the timing of purchases and sales of shares of our common stock by the investors or any other person. We will make copies of this prospectus available to the investors and have informed them of the need to deliver a copy of this prospectus to each purchaser at or prior to the time of the sale (including by compliance with Rule 172 under the Securities Act).

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 February 1, 2016, there are 100,149,453 shares outstanding and, as of December 31, 2015, there are 6,795,815 shares of our common stock reserved for the exercise of outstanding stock options, warrants and restricted stock units. There were approximately 250 record holders as of February 1, 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.

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:

- <u>Preferred Stock</u>. 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.
- <u>Stockholder Meetings</u>. Under our certificate of incorporation, as amended, and bylaws, special meetings of our stockholders may be called only by the vote of a majority of the entire Board of Directors or the chairman of the Board of Directors. Our stockholders may not call a special meeting of the stockholders.
- Requirements for Advance Notification of Stockholder Nominations and Proposals. Our bylaws establish advance notice procedures with respect to stockholder proposals and the nomination of candidates for election as directors, other than nominations made by or at the direction of our Board of Directors or a committee thereof.

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, 2014 and 2013 and for each of the two years in the period ended December 31, 2014 and management's assessment of the effectiveness of internal control over financial reporting as of December 31, 2014 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, 2014, filed on February 20, 2015;
- our Quarterly Reports on Form 10-Q for the quarter ended March 31, 2015, filed on May 6, 2015; for the quarter ended June 30, 2015, filed on August 6, 2015; and for the quarter ended September 30, 2015, filed on November 9, 2015;
- our Current Reports on Form 8-K filed on February 6, 2015 (Items 5.02 and 9.01), on February 20, 2015 (Items 1.01 and 9.01), on April 16, 2015 (Items 8.01 and 9.01), on April 21, 2015 (Item 8.01 and 9.01), on May 8, 2015 (Item 5.07), on May 11, 2015 (Items 5.02 and 9.01), on June 1, 2015 (Items 8.01 and 9.01), on June 8, 2015 (Items 8.01 and 9.01), on June 12, 2015 (Items 1.01, 8.01 and 9.01), on July 13, 2015 (Items 8.01 and 9.01), on August 17, 2015 (Items 1.01, 2.03 and 9.01), on September 21, 2015 (Items 1.01, 2.01, 3.02, 5.02 and 9.01), on November 16, 2015 (Items 1.01 and 9.01), on February 9, 2016 (Items 1.01, 8.01 and 9.01), and on February 10, 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.

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 are 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.

PART II INFORMATION NOT REQUIRED IN PROSPECTUS

Item 14. Other Expenses of Issuance and Distribution.

The costs and expenses payable by the Company in connection with the offerings described in this registration statement are set forth below. The investors will not bear any portion of such expenses.

| SEC registration fee | \$15,415.00 |
|------------------------------|--------------|
| Legal fees and expenses | \$ 7,500.00* |
| Accounting fees and expenses | \$ 7,500.00* |
| Printer costs and expenses | \$ 2,000.00* |
| Total | \$32,415.00 |

Estimated as permitted under Rule 511 of Regulation S-K.

Item 15. Indemnification of Directors and Officers.

The Delaware General Corporation Law ("DGCL") and certain provisions of our bylaws under certain circumstances provide for indemnification of our officers, directors and controlling persons against liabilities which they may incur in such capacities. A summary of the circumstances in which such indemnification is provided for is contained herein, but this description is qualified in its entirety by reference to our bylaws.

Section 145 of the DGCL permits a corporation to indemnify any director, officer, employee or agent of the corporation against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred in connection with any action, suit or proceeding brought by reason of the fact that such person is or was a director or officer of the corporation, if such person acted in good faith and in a manner that he or she reasonably believed to be in, or not opposed to, the best interests of the corporation, and, with respect to any criminal action or proceeding, if he or she had no reason to believe his or her conduct was unlawful.

A similar standard is applicable in the case of derivative actions (i.e., actions brought by or on behalf of the corporation), except that indemnification only extends to expenses (including attorneys' fees) actually and reasonably incurred in connection with the defense or settlement of such action, and the statute requires court approval before there can be any indemnification where the person seeking indemnification has been found liable to the corporation. The statute provides that it is not exclusive of other indemnification that may be granted by a corporation's certificate of incorporation, bylaws, disinterested director vote, stockholder vote, agreement or otherwise.

Our bylaws provide for the indemnification described above and requires that any such indemnification only be made by the Company upon a determination that the applicable standard of conduct has been met, which determination shall be made (a) by the Board of Directors, by a majority vote of a quorum consisting of directors who were not parties to such action, suit or proceeding, or (b) if such a quorum is not obtainable, or, even if obtainable, if a quorum of disinterested directors so directs, by independent legal counsel in a written opinion, or (c) by the stockholders.

Our bylaws also authorize the Board of Directors, in its discretion, to pay the expenses of any such action in advance of the final disposition of such action upon a written undertaking by such indemnitee to repay such amounts if it shall ultimately be determined that he or she is not entitled to indemnification under the standard set by the DGCL and our bylaws.

Section 102(b)(7) of the DGCL permits, and the Company's Amended and Restated Certificate of Incorporation provide, that no director shall be personally liable to the Company or its stockholders for monetary damages for such a breach of fiduciary duty as a director, except for liabilities arising:

- from any breach of the director's duty of loyalty to the Company or its stockholders;
- · from acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law;
- · under Section 174 of the DGCL (unlawful payment of dividend or unlawful stock purchase or redemption); and
- from any transaction from which the director derived an improper personal benefit.

We have entered into an indemnification agreement with each of our directors and executive officers. The indemnification agreements provide indemnification to each director or executive officer (the "Indemnitee") against all expenses, judgments, penalties, fines and amounts paid in settlement actually and reasonably incurred by the Indemnitee, or on his or her behalf if the Indemnitee is, or is threatened to be made, a party to or participant in any proceeding related to his or her status as a director and/or executive officer of the Company, as long as the Indemnitee acted in good faith and in a manner the Indemnitee reasonably believed to be in or not opposed to the best interests of the Company, and with respect to any criminal proceeding, had no reasonable cause to believe the Indemnitee's conduct was unlawful. For proceedings by or in the right of the Company, indemnification is provided as set forth above; provided, however, if applicable law so provides, no indemnification against such expenses will be made in respect of any claim, issue or matter in such proceeding as to which Indemnitee shall have been adjudged to be liable to the Company unless and to the extent that the Court of Chancery of the State of Delaware shall determine that such indemnification may be made.

Section 145(g) of the DGCL grants the power to us to purchase and maintain insurance which protects our officers and directors against any liabilities incurred in connection with their service in such a position, and such a policy may be obtained by us.

A stockholder's investment may be adversely affected to the extent we pay the costs of settlement and damage awards against directors and officers as required by these indemnification provisions. At present, there is no pending litigation or proceeding involving any of our directors, officers or employees regarding which indemnification is sought, nor are we aware of any threatened litigation that may result in claims for indemnification.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers or persons controlling us pursuant to the foregoing provisions, we have been informed that, in the opinion of the SEC, this indemnification is against public policy as expressed in the Securities Act and is therefore unenforceable.

Item 16. Exhibits.

The following exhibits are filed as part of, or incorporated by reference into this registration statement:

| Exhibit Number | Identification of Exhibit |
|-------------------|--|
| 1.1 + | Form of Underwriting Agreement |
| 2.1 | Securities Purchase Agreement, dated as of August 13, 2013, by and among SafeStitch Medical, Inc. and the investors party thereto (filed as Exhibit 10.1 to our Current Report on Form 8-K, filed with the SEC on August 14, 2013 and incorporated by reference herein) |
| 4.1 | Specimen Certificate for common stock of Registrant (filed as Exhibit 4.1 to the Company's Registration Statement on Form S-3, File No. 333-193235, filed with the SEC on January 8, 2014 and incorporated by reference herein) |
| 5.1 * | Opinion of Ballard Spahr LLP |
| 10.1 | Form of Lock-up and Voting Agreement (filed as Exhibit 10.2 to our Current Report on Form 8-K, filed with the SEC on August 14, 2013 and incorporated by reference herein) |
| 10.2 | Registration Rights Agreement, dated as of September 3, 2013, by and among SafeStitch Medical, Inc. and the investors party thereto (filed as Exhibit 10.10 to our Current Report on Form 8-K, filed with the SEC on September 6, 2013 and incorporated by reference herein) |
| 23.1 * | Consent of BDO USA, LLP |
| 23.2 * | Consent of BDO S.p.A. |
| 23.4 * | Consent of Ballard Spahr LLP (included in Exhibit 5.1) |
| 24.1 * | Power of Attorney |

⁺ To be filed as an exhibit to a report filed pursuant to Sections 13(a), 13(c) or 15(d) of the Exchange Act or by post-effective amendment to the Registration Statement if securities are sold by an investor through one or more underwriters.

Item 17. Undertakings.

- (a) The undersigned registrant hereby undertakes:
 - (1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:
 - (i) To include any prospectus required by section 10(a)(3) of the Securities Act of 1933;
- (ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the SEC pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20% change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement; and

^{*} Filed herewith.

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

Provided, however, that:

Paragraphs (1)(i), (1)(ii) and (1)(iii) of this section do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the SEC by the registrant pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the registration statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of the registration statement.

- (2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.
- (3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.
 - (4) That, for the purpose of determining liability under the Securities Act of 1933 to any purchaser:
 - (i) (i) If the registrant is relying on Rule 430B:
- (A) Each prospectus filed by the registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and
- (B) Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5), or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii), or (x) for the purpose of providing the information required by Section 10(a) of the Securities Act of 1933 shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which that prospectus relates, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof, provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such effective date; or
- (ii) If the registrant is subject to Rule 430C, each prospectus filed pursuant to Rule 424(b) as part of a registration statement relating to an offering, other than registration statements relying on Rule 430B or other than prospectuses filed in reliance on Rule 430A, shall be deemed to be part of and included in the registration statement as of the date it is first used after effectiveness, provided, however, that no statement made in a registration statement or prospectus that is part of the registration

statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such first use, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such date of first use.

(5) That, for the purpose of determining liability of the registrant under the Securities Act of 1933 to any purchaser in the initial distribution of the securities:

The undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:

- (i) Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;
- (ii) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;
- (iii) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and
 - (iv) Any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.
- (b) The undersigned registrant hereby further undertakes that, for purposes of determining any liability under the Securities Act of 1933, each filing of the registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.
- (c) Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act of 1933, and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question of whether such indemnification by it is against public policy as expressed in said act and will be governed by the final adjudication of such issue.

- (d) The undersigned registrant hereby undertakes that:
- (1) For purposes of determining any liability under the Securities Act of 1933, the information omitted from the form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in a form of prospectus filed by the registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this registration statement as of the time it was declared effective.
- (2) For the purpose of determining any liability under the Securities Act of 1933, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Morrisville, State of North Carolina on the 11th day of February, 2016.

TransEnterix, Inc.

By: /s/ Todd M. Pope

Todd M. Pope

President and Chief Executive Officer (principal executive officer)

By: /s/ Joseph P. Slattery

Joseph P. Slattery

Executive Vice President and Chief

Financial Officer

(principal financial officer and principal accounting officer)

Pursuant to the requirements of the Securities Act of 1933, as amended, this registration statement has been signed by the following persons in the capacities and on the dates indicated.

| Signature | Title | Date |
|--|---|-------------------|
| /s/ Todd M. Pope Todd M. Pope | President, Chief Executive Officer and Director (principal executive officer) | February 11, 2016 |
| /s/ Joseph P. Slattery Joseph P. Slattery | Executive Vice President and Chief Financial Officer (principal financial officer and principal accounting officer) | February 11, 2016 |
| * Paul A. LaViolette | Chairman of the Board | February 11, 2016 |
| Andrea Biffi | Director | , 2016 |
| * Dennis J. Dougherty | Director | February 11, 2016 |
| * Jane H. Hsiao | _ Director | February 11, 2016 |

Attorney-in-fact

| Signature | Title | Date |
|---|----------|-------------------|
| * | Director | February 11, 2016 |
| William N. Kelley | | |
| * | Director | February 11, 2016 |
| Aftab R. Kherani | • | |
| * | Director | February 11, 2016 |
| David B. Milne | • | · |
| * | Director | February 11, 2016 |
| Richard C. Pfenniger, Jr. | • | · |
| * | Director | February 11, 2016 |
| William N. Starling, Jr. | • | , |
| * By: /s/ Joseph P. Slattery Joseph P. Slattery | <u></u> | |

Ballard Spahr

1735 Market Street, 51st Floor Philadelphia, PA 19103-7599 TEL 215.665.8500 FAX 215.864.8999 www.ballardspahr.com

February 11, 2016

TransEnterix, Inc. 635 Davis Drive, Suite 300 Morrisville, NC 27713

RE: <u>TransEnterix</u>, <u>Inc</u>.

Ladies and Gentlemen:

We have acted as counsel to TransEnterix, Inc., a Delaware corporation (the "<u>Company</u>"), in connection with the preparation and filing with the Securities and Exchange Commission (the "<u>Commission</u>") of the Company's Registration Statement on Form S-3, dated the date hereof (the "<u>Registration Statement</u>"), under the Securities Act of 1933, as amended (the "<u>Securities Act</u>"), relating to the registration of the resale of 42,759,127 shares of common stock, par value \$0.001 per share of the Company (the "<u>Shares</u>"), which are held by certain selling stockholders (the "<u>Selling Stockholders</u>") and that may be sold by the Selling Stockholders from time to time on a delayed or continuous basis pursuant to Rule 415 under the Securities Act.

In so acting, we have examined originals or copies (certified or otherwise identified to our satisfaction) of: (i) the Amended and Restated Certificate of Incorporation of the Company together with all amendments thereto; (ii) the Amended and Restated Bylaws of the Company; (iii) the Registration Statement and the exhibits thereto; (iv) the prospectus contained within the Registration Statement; (v) the Securities Purchase Agreement, dated as of August 13, 2013, by and among SafeStitch Medical, Inc. and the investors party thereto; (vi) the Registration Rights Agreement, dated as of September 3, 2013, by and among SafeStitch Medical, Inc. and the investors party thereto; (vii) such corporate records, agreements, documents and other instruments; and (viii) such certificates or comparable documents of public officials and other sources believed by us to be reliable, and of officers and representatives of the Company, and have made such inquiries of such officers and representatives, as we have deemed relevant and necessary as a basis for the opinions hereinafter set forth.

In such examination, we have assumed the genuineness of all signatures, the legal capacity of all natural persons, the authenticity of all documents submitted to us as originals, the conformity to original documents of all documents submitted to us as certified, conformed or photostatic copies and the authenticity of the originals of such latter documents. As to all questions of fact material to this opinion that have not been independently established, we have relied upon certificates or comparable documents of officers and representatives of the Company.

Atlanta | Baltimore | Bethesda | Delaware | Denver | Las Vegas | Los Angeles | New Jersey | New York | Philadelphia | Phoenix Salt Lake City | San Diego | Washington, DC | www.ballardspahr.com

TransEnterix, Inc. February 11, 2016 Page 2

Based on the foregoing, and subject to the qualifications stated herein, we are of the opinion that the Shares have been duly authorized and are validly issued, fully paid and non-assessable.

We express no opinion as to the laws of any jurisdiction other than the federal laws of the United States of America and the laws of the State of Delaware.

We hereby consent to the use of this letter as an exhibit to the Registration Statement and to any references to our firm in the prospectus which is a part of the Registration Statement.

Sincerely yours,

/s/ Ballard Spahr LLP

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

TransEnterix, Inc. Morrisville, North Carolina

We hereby consent to the incorporation by reference in the Prospectus constituting a part of this Registration Statement of our reports dated February 20, 2015, relating to the consolidated financial statements and the effectiveness of TransEnterix, Inc.'s internal control over financial reporting appearing in the Company's Annual Report on Form 10-K for the year ended December 31, 2014. Our report contains an explanatory paragraph regarding the Company's ability to continue as a going concern.

We also consent to the reference to us under the caption "Experts" in the Prospectus.

/s/ BDO USA, LLP

Raleigh, North Carolina February 11, 2016

Consent of Independent Auditor

We hereby consent to the incorporation by reference in the Prospectus constituting a part of this Registration Statement on Form S-3 of our report dated December 3, 2015, relating to the carve-out financial statements of ALF-X System (a carve-out of SOFAR S.p.A.) appearing in the Current Report on Form 8-K/A filed by TransEnterix, Inc. on December 4, 2015.

We also consent to the reference to us under the caption "Experts" in the Prospectus.

/s/ BDO S.p.A. Milano, Italy

February 11, 2016

POWER OF ATTORNEY

KNOW ALL BY THESE PRESENTS, each undersigned director of TransEnterix, Inc. constitutes and appoints Todd M. Pope, Joseph P. Slattery and Joshua B. Weingard, and each of them, as the true and lawful attorney-in-fact and agent, with full power of substitution and resubstitution, for such person and in such person's name, place and stead, in any and all capacities, to sign a Registration Statement on Form S-3 to register for resale shares of common stock held by the investors who are party to that certain Registration Rights Agreement dated as of September 3, 2013, and to file the same, with all exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorney-in-fact and agent full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorney-in-fact and agent, or his substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

| /s/ Paul A. LaViolette | _ | July 30, 2015 |
|---|---|---------------|
| Paul A. LaViolette | | |
| /s/ Dennis J. Dougherty Dennis J. Dougherty | - | July 30, 2015 |
| | | |
| /s/ Jane H. Hsiao Jane H. Hsiao | - | July 30, 2015 |
| Jalie H. HSido | | |
| /s/ William N. Kelley | _ | July 30, 2015 |
| William N. Kelley | | |
| /s/ Aftab R. Kherani | | July 30, 2015 |
| Aftab R. Kherani | - | |
| /s/ David B. Milne | | Inle 20 2015 |
| David B. Milne | - | July 30, 2015 |
| | | |
| /s/ Richard C. Pfenniger, Jr. | - | July 30, 2015 |
| Richard C. Pfenniger, Jr. | | |
| /s/ William N. Starling, Jr. | | July 30, 2015 |
| William N. Starling, Jr. | - | |