

The information in this preliminary prospectus supplement is not complete and may be changed. A registration statement relating to these securities has been filed with the Securities and Exchange Commission and is effective. This preliminary prospectus supplement and the accompanying prospectus are not an offer to sell these securities and we are not soliciting offers to buy these securities in any state or other jurisdiction where to offer or sale is not permitted.

SUBJECT TO COMPLETION, DATED MARCH 5, 2020

PRELIMINARY PROSPECTUS SUPPLEMENT
(To Prospectus dated May 19, 2017)



Class A Units, consisting of shares of Common Stock and Warrants to purchase up to _____ shares of Common Stock
Class B Units, consisting of shares of Series A Preferred Stock and Warrants to purchase up to _____ shares of Common Stock
(and _____ shares of common stock issuable upon exercise of such warrants and conversion of the Series A Preferred Stock)

Pursuant to this prospectus supplement and the accompanying prospectus, we are offering Class A Units at a public offering price of \$ _____ per Class A Unit. Each Class A Unit consists of one share of our common stock, par value \$0.001 per share, one warrant to purchase common stock that expires on the first anniversary of the date of issuance, collectively referred to as the Series C warrants, and one warrant to purchase common stock that expires on the fifth anniversary of the date of issuance, collectively referred to as the Series D warrants.

We are also offering to those purchasers whose purchase of Class A Units in this offering would result in the purchaser, together with its affiliates and certain related parties, beneficially owning more than 4.99% (or, at the election of the purchaser, 9.99%) of our outstanding common stock following the consummation of this offering, the opportunity to purchase, if they so choose, in lieu of the number of Class A Units that would result in ownership in excess of 4.99% (or, at the election of the purchaser, 9.99%), Class B Units at a public offering price of \$ _____ per Class B Unit. Each Class B Unit consists of one share of Series A Preferred Stock, par value \$0.0001 per share, referred to as the Series A Preferred Stock, convertible into one share of common stock, a Series C warrant to purchase one share of common stock and a Series D warrant to purchase one share of common stock (together with the shares of common stock underlying such shares of Series A Preferred Stock and such warrants). The Class A Units and the Class B Units are sometimes referred to in this prospectus supplement collectively as the Units.

Each Series C warrant included in the Units will have an initial exercise price of \$ _____ per share and each Series D warrant included in the Units will have an exercise price of \$ _____ per share. The warrants will be exercisable at any time on or after the date of issuance until their respective expiration dates.

The Class A Units and Class B Units have no stand-alone rights and will not be certificated or issued as stand-alone securities. The shares of common stock, Series A Preferred Stock, Series C warrants and Series D warrants comprising such Units are immediately separable and will be issued separately in this offering.

The Units will be issued and sold pursuant to an underwriting agreement dated _____, 2020 between us and Ladenburg Thalmann & Co. Inc., as representative of the underwriters named therein. See "Underwriting" for additional information. The underwriter has the option to purchase additional shares of common stock, Series C warrants and/or Series D warrants solely to cover over-allotments, if any, at the price to the public less the underwriting discounts and commissions. The over-allotment option may be used to purchase shares of common stock, Series C warrants or Series D warrants, or any combination thereof, as determined by the underwriter, but such purchases cannot exceed an aggregate of 15% of the number of shares of common stock (including the number of shares of common stock issuable upon conversion of shares of Series A Preferred Stock) and Series C warrants and Series D warrants sold in the primary offering. The over-allotment option is exercisable for 45 days from the date of this prospectus.

We refer to the shares of common stock, Series A Preferred Stock and the warrants to purchase common stock issued in this offering, as well as the shares of common stock underlying the warrants and the Series A Preferred Stock, collectively, as the securities.

Our common stock is listed on the NYSE American under the symbol "TRXC." On March 4, 2020, the last reported sale price of our common stock on the NYSE American was \$1.14 per share.

Investing in our securities involves risks. You should review carefully the risks and uncertainties described under the heading "Risk Factors" on page S-8 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.

	Per Series A Unit	Per Series B Unit	Total(2)
Public offering price(1)			
Underwriting discounts and commissions(2)(3)			
Proceeds to us, before expenses			

- (1) The public offering price and underwriting discount corresponds to (x) in respect of the Class A Units (i) a public offering price per share of common stock of \$ _____, (ii) a public offering price per Series C warrant of \$ _____, and (iii) a public offering price per Series D warrant of \$ _____ and (y) in respect of the Class B Units (i) a public offering price per share of Series A Preferred Stock of \$ _____, (ii) a public offering price per Series C warrant of \$ _____, and (iii) a public offering price per Series D warrant of \$ _____.
- (2) We refer you to "Underwriting" beginning on page S-39 of this prospectus supplement for additional information regarding underwriting compensation and expenses for which we have agreed to reimburse the underwriters.
- (3) We have granted a 45-day day option to the underwriter to purchase additional shares of common stock, Series C warrants to purchase shares of common stock and/or Series D warrants to purchase shares of common stock (up to 15% of the number of shares of common stock (including the number of shares of common stock issuable upon conversion of shares of Series A Preferred Stock), Series C warrants and Series D warrants sold in the primary offering) solely to cover over-allotments, if any.

We estimate the total expenses of this offering, excluding the underwriting discounts and commissions, will be approximately \$ _____, which includes underwriting expenses we have agreed to reimburse. The above summary of offering proceeds to us does not give effect to any exercise of the warrants being issued in this offering.

The underwriters expect to deliver the securities on or about _____, 2020, subject to customary closing conditions.

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.

Sole Book-Running Manager

Ladenburg Thalmann

The date of this prospectus supplement is _____, 2020.

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ABOUT THIS PROSPECTUS SUPPLEMENT

This prospectus supplement and the accompanying prospectus, dated May 19, 2017, are part of a “shelf” registration statement on Form S-3 (File No. 333-217865). This document is in two parts. The first part is this prospectus supplement, which describes the terms of this offering of our securities 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. and its subsidiaries, TransEnterix Surgical, Inc., Safestitch LLC, TransEnterix International, Inc., TransEnterix Italia, S.r.l., TransEnterix Europe S.à.R.L., TransEnterix Asia Pte. Ltd., TransEnterix Taiwan Ltd, TransEnterix Japan KK, TransEnterix Israel Ltd. and TransEnterix Netherlands, B.V.

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.

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,” “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 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

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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.

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 our securities, 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-8 of this prospectus supplement and the documents incorporated by reference herein.

TransEnterix, Inc.

We are a medical device company that is digitizing the interface between the surgeon and the patient in laparoscopy to increase control and reduce surgical variability in today's value-based healthcare environment. We are focused on the market development for and commercialization of the Senhance® Surgical System, which digitizes laparoscopic minimally invasive surgery. The Senhance Surgical System is the first and only digital, multi-port laparoscopic platform designed to maintain laparoscopic minimally invasive surgery (MIS) standards while providing digital benefits such as haptic feedback, robotic precision, comfortable ergonomics, advanced instrumentation including 3 mm microlaparoscopic instruments, eye-sensing camera control and reusable standard instruments to help maintain per-procedure costs similar to traditional laparoscopy.

The Senhance System has a CE Mark in Europe for laparoscopic abdominal and pelvic surgery, as well as limited thoracic operations excluding cardiac and vascular surgery. In the United States, we have received 510(k) clearance from the FDA for use of the Senhance System in laparoscopic colorectal and gynecologic surgery in a total of 28 indicated procedures, including benign and oncologic procedures, laparoscopic inguinal hernia and laparoscopic cholecystectomy (gallbladder removal) surgery. The Senhance System is available for sale in the United States, the European Union, Japan, Taiwan and select other countries.

In January 2020, we filed a 510(k) submission with the FDA for an Intelligent Surgical Unit (ISU™) that is designed to enable machine vision capabilities on the Senhance System. We believe it is the first such FDA submission seeking clearance for machine vision technology in abdominal robotic surgery.

On October 31, 2018, we acquired the assets, intellectual property and highly experienced multidisciplinary personnel of MST Medical Surgical Technologies, Inc., or MST, an Israeli-based medical technology company. Through this acquisition we acquired MST's AutoLap™ assets and technology, one of the only image-guided robotic scope positioning systems with FDA clearance and CE Mark. We believe MST's image analytics technology will accelerate and drive meaningful Senhance System developments, and allow us to expand the Senhance System to add augmented, intelligent vision capability. We sold certain AutoLap assets, while retaining the core technology, in October 2019.

During 2018 and early 2019, we successfully obtained FDA clearance and a CE Mark for three millimeter diameter instruments and the Senhance ultrasonic system. The three millimeter instruments enable the Senhance System to be used for microlaparoscopic surgeries, allowing for tiny incisions. The Senhance ultrasonic system is an advanced energy device used to deliver controlled energy to ligate and divide tissue, while minimizing thermal injury to surrounding structures.

We acquired the Senhance System on September 18, 2015, by entry, with certain of our subsidiaries as purchasers, into a Membership Interest Purchase Agreement, or the Purchase Agreement, with Sofar S.p.A. as seller. The closing of the transactions occurred on September 21, 2015. The Senhance acquisition included all of the assets, employees and contracts related to the Senhance System.

We believe that future outcomes of minimally invasive surgery will be enhanced through our combination of more advanced tools and robotic functionality, which are designed to:

- empower surgeons with improved precision, ergonomics, dexterity and visualization;
- offer high patient satisfaction and enable a desirable post-operative recovery; and
- provide a cost-effective robotic system, compared to existing alternatives today, for a wide range of clinical applications and operative sites within the healthcare system.

Our strategy is to focus on the market development, commercialization and further development of the Senhance System.

We further believe that:

- laparoscopic and robotic surgery will need to continue to evolve given the pressures of value-based healthcare and existing operating room inefficiencies, surgical variability and workforce challenges;
- with the Senhance System, surgeons can benefit from the haptic feedback, enhanced three-dimensional, high definition, or 3DHD, vision and open architecture consistent with current laparoscopic surgery procedures; and
- patients will continue to seek a minimally invasive option, offering minimal scarring and fewer incisions, for many common general abdominal and gynecologic surgeries, which desires are addressed by the Senhance System.

As used herein, the terms “Company,” “we,” “our,” or “us” each includes TransEnterix, Inc. and its subsidiaries, TransEnterix Surgical, Inc., Safestitch LLC, TransEnterix International, Inc., TransEnterix Italia, S.r.l., TransEnterix Europe S.à.R.L, TransEnterix Asia Pte. Ltd., TransEnterix Taiwan Ltd, TransEnterix Japan KK, TransEnterix Israel Ltd. and TransEnterix Netherlands, B.V.

We operate in one business segment.

Strategic Focus

Despite the number of advances and regulatory clearances received in 2018 and 2019, our Senhance System sales in 2019 were disappointing, with fiscal year 2019 revenues of \$8.5 million (unaudited). Adoption of new technologies, particularly for capital intensive devices such as the Senhance System can be slow and uneven, as market development and commercial development is time-consuming and expensive. We have determined to refocus our resources and efforts in 2020 on market development activities to increase awareness of:

- the benefits of the use of the Senhance System in laparoscopic surgery;
- expand the installed base and drive meaningful procedural growth;
- the indications for use, including pediatric indications of use in CE Mark territories and expansion of our US FDA indication to include General surgery;
- the overall cost efficiency of the Senhance System;
- augmented intelligence and machine vision in surgery and the launch of the Intelligent Surgical System

We intend to focus on markets with high utilization of laparoscopic technique, including Japan, Western Europe and the United States. Our focus will be on (1) increasing the number of placements of the Senhance System, not necessarily through sales, but through leasing arrangements, (2) increasing the number of procedures conducted using the Senhance System quarter over quarter, and (3) solidifying key opinion leader support and publications related to the use of the Senhance System in laparoscopic procedures. While we expect baseline revenue of \$3.0 to \$3.2 million for 2020, during 2020 we will not focus on revenue targets.

Selected Consolidated Financial Information (Unaudited)

The table below shows selected consolidated financial data (unaudited). The financial information for our fiscal year December 31, 2019 is unaudited financial data and is therefore subject to change. The unaudited financial information has been prepared by, and is the responsibility of, management. Our independent registered public accounting firm has not expressed an opinion with respect to the financial data included herein. Our actual results may differ materially between now and the time the audited financial results for the 2019 fiscal year are finalized.

Year ended December 31,	2019	2018
	(in thousands)	
Statement of Operations and Comprehensive Loss Data:		
Revenue	\$ 8,531	\$ 24,102
Balance Sheet Data:		
Total assets	\$74,384	\$239,307
Long-term obligations(1)	\$ 1,012	\$ 39,502

- (1) Long-term obligations for 2018 include: (a) cash consideration installments to be paid to Sofar in connection with the Senhance Acquisition; and (b) outstanding amounts under the then-existing loan agreements.

In conjunction with our shift in strategic focus, during the fourth quarter of 2019, we announced the implementation of a restructuring plan to reduce operating expenses as we continue the global market development of the Senhance platform. Under the restructuring plan, we reduced headcount primarily in the sales and marketing functions and determined that the net realizable value of our inventory exceeded the carrying value due to a decrease in expected sales. The restructuring charges amounted to \$9.0 million (unaudited), of which \$7.6 million (unaudited) was a non-cash inventory write down and \$1.4 million (unaudited) related to employee severance costs and will be included as restructuring and other charges in the consolidated statements of operations and comprehensive loss, during the fourth quarter of 2019. Future payments under the restructuring plan are expected to conclude in 2020.

During March 2020, we continued our restructuring with additional headcount reductions which resulted in \$0.4 million (unaudited) related to severance costs which are expected to be paid in 2020 and 2021.

As of February 28, 2020, our cash, cash equivalents and restricted cash was approximately \$12.8 million (unaudited).

Since our shift in focus announced in November 2019, we have placed three Senhance Systems and entered into lease agreements with two additional customers. We currently have 27 Senhance Systems in use worldwide. We have worked with our customers to streamline the set-up and training process to allow for use of the Senhance Systems as soon as possible after placement or sale. As of March 1, 2020, Senhance Systems have been used in 340 procedures globally, an increase of 29% over the first two months of 2019.

Recent Developments*At-The-Market Offering*

On August 12, 2019, we entered into a Controlled Equity Offering Sales Agreement, or the 2019 Sales Agreement, with Cantor Fitzgerald & Co., or Cantor, pursuant to which we may sell from time to time, at our option, up to an aggregate of \$25.0 million, shares of our common stock through Cantor, as sales agent. Pursuant to the Sales Agreement, sales of our common stock were made under our previously filed and currently effective Registration Statement on Form S-3. The aggregate compensation payable to Cantor was 3.0% of the aggregate gross proceeds from each sale of our common stock.

The following table summarizes the total sales under the 2019 Sales Agreement for the period commencing October 1, 2019 and ended March 4, 2020 (in thousands except for per share amounts):

Total shares of common stock sold	7,671
Average price per share	\$ 1.78
Gross proceeds	\$13,670
Commissions earned by Cantor	\$ 420
Net Proceeds	\$13,260

Lincoln Park Capital Purchase Agreement

On February 10, 2020, we entered into a Purchase Agreement with Lincoln Park Capital Fund, LLC, an Illinois limited liability company, pursuant to which we have the right to sell to Lincoln Park up to an aggregate of \$25,000,000 in shares of Common Stock over the 36-month term of the Purchase Agreement, subject to certain limitations and conditions set forth in the Purchase Agreement. In consideration for entering into the Purchase Agreement, we issued to Lincoln Park 343,171 shares of Common Stock as commitment shares on February 10, 2020. No shares have been sold to Lincoln Park under the Purchase Agreement to date.

Series B warrant Exchange

On February 24, 2020, we entered into a Series B warrants Exchange Agreement with holders of our Series B warrants originally issued as part of a public offering in May 2017. Under the terms of the agreement, each Series B warrant was cancelled in exchange for 0.61 of a share of our common stock. The Warrant holders participating in the exchange held 3,373,900 of the 3,638,780 Series B warrants outstanding, and received an aggregate of 2,040,757 shares of our common stock issued pursuant to a registration statement on Form S-3, (No. 333-236337) declared effective by the SEC on February 13, 2020.

Selected Financial Data

On December 11, 2019, we effected the reverse stock split. As a result of the reverse stock split, every 13 outstanding shares of common stock became one share of common stock. On a pre-split basis, we had 216,345,984, 199,282,003 and 115,781,030 shares outstanding at December 31, 2018, 2017 and 2016, respectively, and on a post-split basis, we had 16,641,999, 15,329,385 and 8,906,234 shares outstanding at December 31, 2018, 2017 and 2016, respectively. The following selected financial data is based on common stock and per share data from our Annual Report on Form 10-K for the fiscal year ended December 31, 2018, as retrospectively adjusted to reflect the reverse stock split.

Select Data from Consolidated Statements of Operations

	Year Ended December 31,		
	2018	2017	2016
	(In thousands, except per share data)		
Statement of Operations Data:			
Revenue	\$ 24,102	\$ 7,111	\$ 1,519
Net loss	(61,777)	(144,796)	(119,980)
Basic and diluted net loss per share	(3.88)	(12.65)	(13.90)
Weighted average shares used in computing basic and diluted net loss per share	15,939	11,442	8,630

Company Information

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

THE OFFERING

Class A Units Offered:	We are offering Class A Units, with each Class A Unit consisting of one share of common stock, one Series C warrant to purchase one share of common stock and one Series D warrant to purchase one share of common stock (together with the shares of common stock issuable upon exercise of such warrants).
Class A price to the public:	\$ per Class A Unit.
Class B Units Offered:	We are also offering to those purchasers whose purchase of Class A Units in this offering would result in the purchaser, together with its affiliates and certain related parties, beneficially owning more than 4.99% (or, at the election of the purchaser, 9.99%) of our outstanding common stock following the consummation of this offering, the opportunity to purchase, in lieu of the number of Class A Units that would result in ownership in excess of 4.99% (or, at the election of the purchaser, 9.99%) of our outstanding common stock, Class B Units. Each Class B Unit consists of one share of Series A Preferred Stock, par value \$0.0001 per share, convertible into one share of common stock, a Series C warrant to purchase one share of our common stock and a Series D warrant to purchase one share of our common stock (together with the shares of our common stock underlying such shares of Series A Preferred Stock and warrants).
Class B price to the public:	\$ per Class B Unit.
Overallotment option:	We have granted the underwriter an option, exercisable in whole or in part during the 45-day period following the date of this prospectus supplement to cover overallotments, if any, to purchase any combination of up to an additional of shares of common stock, Series C warrants and/or Series D warrants, at the price to the public, less underwriting discounts and commissions. The overallotment option may be used to purchase shares of common stock, or warrants, or any combination thereof, as determined by the underwriter, but such purchases cannot exceed an aggregate of 15% of the number of shares of common stock (including the number of shares of common stock issuable upon conversion of shares of Series A Preferred Stock), Series C warrants and Series D warrants sold in the primary offering.
Series C warrants:	The Series C warrants will be exercisable beginning on the date of issuance and expire on the one (1) year anniversary of the date of issuance at an initial exercise price per share equal to \$, subject to appropriate adjustment in the event of recapitalization events, stock dividends, stock splits, stock combinations, reclassifications, reorganizations or similar events affecting our common stock.
Series D warrants:	The Series D warrants will be exercisable beginning on the date of issuance and expire on the five (5) year anniversary of the date of issuance at an initial exercise price per share equal to \$, subject to appropriate adjustment in the event of recapitalization events, stock dividends, stock splits, stock combinations, reclassifications, reorganizations or similar events affecting our common stock.

Series A Preferred Stock:	<p>Each share of Series A Preferred Stock is convertible at any time at the holder's option into one share of common stock.</p> <p>Notwithstanding the foregoing, we shall not effect any conversion of Series A Preferred Stock, with certain exceptions, to the extent that, after giving effect to an attempted conversion, the holder of shares of Series A Preferred Stock (together with such holder's affiliates, and any persons acting as a group together with such holder or any of such holder's affiliates) would beneficially own a number of shares of our common stock in excess of 4.99% (or, at the election of the purchaser prior to the date of issuance, 9.99%) of the shares of our common stock then outstanding after giving effect to such conversion. For additional information, see "Description of Securities We are Offering — Series A Preferred Stock" for a discussion of the terms of the Series A Preferred.</p>
Common stock to be outstanding after this offering:	shares of common stock (assuming none of the warrants issued in the offering are exercised).
Series A Preferred Stock to be outstanding after this offering:	shares of Series A Preferred Stock (assuming no conversion of Series A Preferred Stock).
Use of Proceeds:	We expect the net proceeds from this offering to be approximately \$ million, after deducting the underwriting discounts and commissions and estimated offering expenses payable by us. 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-28 of this prospectus supplement.
Risk Factors:	Investing in our common stock and warrants involves a high degree of risk. See "Risk Factors" beginning on page S-8 of this prospectus supplement and the other information included or incorporated by reference in this prospectus supplement and the accompanying prospectus.
NYSE American symbol:	Our common stock is listed on the NYSE American under the symbol "TRXC."
No Listing of Series A Preferred Stock, Series C Warrants or Series A Warrants:	The shares of common stock offered hereby and the shares issuable upon exercise of the warrants will be listed on the NYSE American. However, there is no established public trading market for Series A Preferred Stock, the Series C warrants or the Series D warrants, and we do not expect a market to develop. In addition, we do not intend to apply to list the Series A Preferred Stock, the Series C warrants or the Series D warrants on any national securities exchange. Without an active trading market, the liquidity of the Series C warrants, Series D warrants and the Series A Preferred Stock will be limited.

The number of shares of common stock to be outstanding after this offering is based on 19,665,574 shares of our common stock outstanding as of September 30, 2019, and excludes, as of such date:

- 10,068,944 shares of common stock we have issued between October 1, 2019 and March 4, 2020;
- 1,964,824 shares of common stock issuable upon the exercise of outstanding options granted under our stock option plans at a weighted average exercise price of \$31.13 per share;
- 420,452 shares of common stock issuable upon the exercise of outstanding warrants at a weighted average exercise price of \$10.12 per share;
- 470,008 shares of common stock issuable upon vesting of outstanding restricted stock units; and
- 1,180,656 shares of common stock available for future issuance under our stock option plans.

Unless otherwise indicated, all information in this prospectus assumes no exercise by the underwriter of its option to purchase additional shares of common stock and/or warrants to cover over-allotments, if any. Unless otherwise stated in this prospectus supplement, all information in this prospectus supplement, including share and per share amounts, gives effect to the 1-for-13 reverse stock split effected in December 2019 and assumes that there will be no exercise of the warrants offered hereby or of outstanding options or warrants after September 30, 2019.

RISK FACTORS

Investing in our securities 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 September 30, 2019, filed with the U.S. Securities and Exchange Commission, or SEC, on November 12, 2019, and “Part I, Item 1A—Risk Factors” in our Annual Report on Form 10-K for the year ended December 31, 2018, filed with the SEC on February 27, 2019, 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 Relating to Our Business

We have a history of operating losses, and we may not be able to achieve or sustain profitability. In addition, we may be unable to continue as a going concern.

We have a limited operating history. We are not profitable and have incurred losses since our inception. Our accumulated deficit as of September 30, 2019 was \$649.9 million. We believe that our existing cash and cash equivalents, together with cash received from product and instrument sales and leases will be sufficient to meet our anticipated cash needs through the second quarter of 2020.

We expect to continue to incur losses for the foreseeable future, and these losses will likely increase as we continue to develop and commercialize our products. We will continue to incur research and development and general and administrative expenses related to our operations, and sales and marketing expenses to support our commercial activities, as restructured. Even if we are successful in reducing our expenses or achieving profitability in the future, we may not be able to sustain profitability in subsequent periods.

We will require substantial additional funding in the future, which may not be available to us on acceptable terms, or at all.

We do not anticipate that the net proceeds of prior equity financings will be sufficient to support development of our products and product candidates and provide us with the necessary resources to commercialize the Senhance System and other products through the lengthy sales cycle. We intend to advance multiple additional products through clinical and pre-clinical development in the future. We believe we will need to raise substantial additional capital in order to continue our operations and achieve our business objectives.

We have two effective shelf registration statements. As of December 31, 2019, we had approximately \$56 million available for future financings under a shelf registration statement due to expire in May 2020. We have an additional shelf registration statement that was declared effective on February 10, 2020 registering up to \$150 million of our securities. As of the date of this prospectus, we had approximately \$124 million available for future financings under such shelf registration statement. We cannot assure you that we will be successful in obtaining such additional financing on terms acceptable to the Company or at all.

Our future funding requirements will depend on many factors, including, but not limited to:

- the costs of our Senhance System market development, commercialization and development activities;
- the costs and timing of seeking and obtaining FDA and other non-U.S. regulatory clearances and approvals for our products in development;

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- the costs associated with our manufacturing capabilities;
- our need to expand our research and development activities;
- the costs of acquiring, licensing or investing in businesses, products and technologies;
- the economic and other terms and timing of our existing licensing arrangement and any collaboration, licensing or other arrangements into which we may enter in the future;
- the effect of competing technological and market developments;
- our need to implement additional internal systems and infrastructure, including financial and reporting systems, quality systems and information technology systems; and
- our ability to maintain, expand and defend the scope of our intellectual property portfolio.

Until we generate a sufficient amount of revenue to finance our cash requirements, which may never occur, we expect to finance future cash needs primarily through public or private equity offerings, debt financings or strategic collaborations. We do not know whether additional funding will be available on acceptable terms, or at all. If we are not able to secure additional funding when needed, we may have to delay, reduce the scope of or eliminate one or more of our research and development programs. To the extent that we raise additional funds by issuing equity securities, our stockholders may experience significant dilution; and debt financing, if available, may involve restrictive covenants that limit our operations. To the extent that we raise additional funds through collaboration and licensing arrangements, it may be necessary to relinquish some rights to our products or grant licenses on terms that may not be favorable to us.

We announced that we are seeking strategic and financing alternatives. We may not be successful in achieving a suitable transaction.

On October 17, 2019, we announced that we had engaged J.P. Morgan Securities LLC to assist the Board of Directors in considering strategic alternatives for the Company to enhance stockholder value, including, but not limited to a sale of the Company, a financing of the Company, a strategic partnership or collaboration or some other form of commercial relationship. In addition, we announced the implementation of a restructuring plan to reduce operating expenses as we continue the global market development of the Senhance platform. We may not be able to identify, successfully negotiate with and consummate a suitable transaction with a buyer or other commercial partner. We may not be able to raise the funds needed to operate the business for any specific period of time. If we are not successful in consummating a transaction or financing, our financial condition will be materially adversely affected.

We have announced a restructuring plan to reduce our operating expenses. We may not achieve some or all of the expected benefits of our restructuring plan and the restructuring may adversely affect our business.

Following the disappointing 2019 commercial results, we have determined to restructure our organization to focus on market development and increasing use of the Senhance System, rather than focusing on building our sales team. Our restructuring is designed to re-align our commercial organization through re-prioritization of certain geographical markets and to implement operational excellence through strategic reallocation of resources. We need to fully implement the restructuring plan while evaluating strategic alternatives. We may encounter unexpected costs while implementing the restructuring plan and may not be successful in reducing our operating expenses as much as needed. We may undertake additional restructurings in the future. Implementation of a restructuring plan is costly and disruptive to our business, and we may not be able to obtain the estimated cost savings and benefits that were initially anticipated in connection with our restructuring in a timely manner or at all. Additionally, as a result of any restructuring, we may experience a loss of continuity, loss of accumulated knowledge and/or inefficiency during transitional periods and may lose momentum in the sales of Senhance Systems. Reorganization and restructuring can require a significant amount of management and other employees' time and focus, which may divert attention from operating and growing our business. Any failure to properly

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execute the restructuring plans could result in total costs that are greater than expected and cause us not to achieve the expected long-term operational benefits and adversely affect our financial condition, operating results and future operations.

We are currently highly dependent on a single product, the Senhance System. We cannot give any assurance that the Senhance System can be successfully commercialized.

We are currently highly dependent on the Senhance System, which is FDA cleared, CE marked and approved for sale and reimbursement in Japan. We began our selling efforts for the Senhance System in the fourth quarter of 2015 in Europe, in the fourth quarter of 2017 in the United States and in the second quarter of 2018 in Asia. We have had limited commercial success to date, particularly in 2019. We have determined to focus our energies on market development and increased usage of the Senhance Systems that have been purchased and placed. We cannot assure you that we will be able to successfully improve the commercialization of the Senhance System, for a number of reasons, including, without limitation, failure in our market development and sales efforts, the long sales cycle associated with the purchase of capital equipment, and the potential introduction by our competitors of more clinically effective or cost-effective alternatives. Failure to successfully commercialize the Senhance System would have a material and adverse effect on our business.

The sales cycle for the Senhance System has been lengthy and unpredictable, which has made it difficult for us to forecast revenue and increase the magnitude of quarterly fluctuations in our operating results.

Purchase of a surgical robotic system such as the Senhance System represents a capital purchase by hospitals and other potential customers. The capital purchase nature of the transaction, the complexity of our product, the relative newness of surgical robotics and the competitive landscape requires us to spend substantial time and effort to assist potential customers in evaluating our robotic systems. We must communicate with multiple surgeons, administrative staff and executives within each potential customer in order to receive all approvals on behalf of such organizations. We face difficulty identifying and establishing contact with such decision makers. Even after initial acceptance, the negotiation and documentation processes can be lengthy. Additionally, our customers may have strict limitations on spending depending on the current economic climate or trends in healthcare management. We are also expanding the potential market for robotic surgical systems with our focus on laparoscopic surgery. Such expansion requires a different sales and marketing approach than a focus on open procedures. We have found that sales are extremely difficult and take substantial effort. In late 2019 we began leasing Senhance Systems to hospitals with lease terms ranging from twelve to twenty-four months. We cannot assure you that these lease arrangements will lead to more sales of our Senhance System.

We currently have limited marketing, sales and distribution capabilities. We are focusing on market development efforts and have curtailed our sales force in the United States, and are focusing on select countries in Europe and in Japan. Sales efforts elsewhere are conducted through the use of independent contractor and distribution agreements with companies possessing established sales and marketing operations in the medical device industry. There can be no assurance that we will be successful in building our sales capabilities after this period of market development. To the extent that we enter into additional distribution, co-promotion or other arrangements, our product revenue is likely to be lower than if we directly market or sell our products. In addition, any revenue we receive will depend in whole or in part upon the efforts of such third parties, which may not be successful and are generally not within our control. If we are unable to enter into such arrangements on acceptable terms or at all, we may not be able to successfully commercialize our products. If we are not successful in commercializing our existing and future products, either on our own or through collaborations with one or more third parties, our future product revenue will suffer and we may incur significant additional losses.

We have procedures in place to require our distributors and sales agents to comply with applicable laws and regulations governing the sales of medical devices in the jurisdictions where they operate. Failure to meet such requirements could subject us to financial penalties or the suspension or termination of the ability to sell our products in such jurisdiction.

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We expect our gross margins to vary over time, and changes in our gross margins could adversely affect our financial condition or results of operations.

We began selling the Senhance System in 2015. Our gross margins have fluctuated from period to period, and we expect that they will continue to fluctuate in the future. Our gross margins have been and may continue to be adversely affected by numerous factors, including:

- service costs;
- changes in customer, geographic, or product mix;
- introduction of new products, which may have lower margins than our existing products;
- our ability to maintain or reduce production costs;
- changes to our pricing strategy;
- changes in competition;
- changes in production volume driven by demand for our products;
- changes in material, labor or other manufacturing-related costs, including impact of foreign exchange rate fluctuations for foreign-currency denominated costs;
- fluctuations in foreign currency exchange rates and changes to U.S. and foreign trade policies, including the enactment of tariffs on goods imported into the U.S.;
- inventory obsolescence and product recall charges; and
- market conditions.

If we are unable to offset the unfavorable impact of the factors noted above by increasing the volume of products shipped, reducing product manufacturing costs or otherwise, our business, financial condition, results of operations or cash flows may be materially adversely affected.

Negative publicity, whether true or not, concerning us or our products could reduce market acceptance of our products and could result in decreased demand for the Senhance System.

There have been social media and other publications regarding us and the Senhance System published from time to time since we started selling the Senhance System. Negative media and social media coverage, whether true or not, concerning our products or us could reduce market acceptance of the Senhance System.

The spread of the Coronavirus (COVID-19) could negatively impact our operations.

We have facilities located in Israel and northern Italy, and the engineers and other employees working in those facilities may be at greater risk for exposure to and for contracting the Coronavirus, COVID-19. The U.S. Center for Disease Control, or the CDC, has reported known cases of COVID-19 in both Israel and Italy. The CDC has also reported a risk of widespread community transmission of COVID-19 in Israel and known widespread community transmission in Italy, and has warned U.S. citizens against any non-essential travel to Italy. The spread of COVID-19 in these locations may result in our employees being forced to work from home or missing work if they or a member of their family contract COVID-19, which could harm our operations and negatively impact our financial condition.

In order to compete successfully within the surgical robotics industry, we need to continue to evolve the Senhance System, including the innovations associated with the MST assets we acquired. Failure to develop, seek regulatory approval for and commercialize such developments could have a material adverse effect on our business and financial position.

In order to compete successfully within the highly competitive surgical robotics industry, we need to continue to advance and innovate the Senhance System, including the innovations associated with the MST assets we

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acquired. Our focus currently is on harnessing the image technology acquired in the MST acquisition to advance the intelligence of the Senhance System to provide meaningful real-time data to surgeons. If we fail to develop such innovations, or fail to obtain regulatory approval or clearance for or successfully commercialize such innovations, such failure could have a material adverse effect on our business and financial position.

Fluctuations in foreign currency exchange rates may adversely affect our financial results.

We conduct operations in several different countries, including the United States and throughout Europe, and portions of our revenues, expenses, assets and liabilities are denominated in U.S. dollars, Euros, and other currencies. Since our consolidated financial statements are presented in U.S. dollars, we must translate revenues, income and expenses, as well as assets and liabilities, into U.S. dollars at exchange rates in effect during or at the end of each reporting period. We have not historically hedged our exposure to foreign currency fluctuations. Accordingly, increases or decreases in the value of the U.S. dollar against the Euro and other currencies could materially affect our net operating revenues, operating income and the value of balance sheet items denominated in foreign currencies.

Our global operations expose us to additional risks and challenges associated with conducting business internationally.

The international expansion of our business, particularly into Europe, Israel and Asia, may expose us to risks inherent in conducting foreign operations. These risks include:

- challenges associated with managing geographically diverse operations, which require an effective organizational structure and appropriate business processes, procedures and controls;
- the increased cost of doing business in foreign jurisdictions, including compliance with international and U.S. laws and regulations that apply to our international operations;
- currency exchange and interest rate fluctuations and the resulting effect on our revenue and expenses, and the cost and risk of entering into hedging transactions, if we chose to do so in the future;
- changes in a specific country's or region's political or economic environment;
- trade protection measures, import or export licensing requirements or other restrictive actions by U.S. or non-U.S. governments;
- potentially adverse tax consequences;
- complexities and difficulties in obtaining protection and enforcing our intellectual property;
- compliance with additional regulations and government authorities in a highly regulated business;
- difficulties associated with staffing and managing foreign operations, including differing labor relations; and
- general economic and political conditions outside of the U.S.

The risks that we face in our international operations may continue to intensify as we further develop and expand our international operations.

We effected a reverse stock split of our common stock on December 11, 2019, which may not achieve one or more of our objectives.

On December 11, 2019, following receipt of approval from stockholders at a special meeting of stockholders held on the same day, we filed an amendment to our Amended and Restated Certificate of Incorporation to effect a reverse stock split of our common stock at a ratio of one-for-thirteen, or the Reverse Stock Split. We cannot predict with certainty the effect of the Reverse Stock Split upon the market price of our common stock. As such,

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it is possible that the market price of our shares may fluctuate and decline. One objective of the Reverse Stock Split was to strengthen our strategic alternative considerations. However, there is no assurance that the per-share market price of our common stock after the Reverse Stock Split will attract institutional investors or investment funds, or meet investing guidelines of institutional investors or investment funds. It is possible that the reduced number of outstanding shares of our common stock following the Reverse Stock Split may adversely impact the liquidity of the shares of our common stock. Moreover, an increased number of stockholders may own odd lots (less than 100 shares) of our common stock following the Reverse Stock Split. These stockholders may face greater trading commissions for the sale of such shares and may have greater difficulty effecting such sales.

Our stock price has been volatile and may experience additional fluctuation in the future.

The market price of our common stock has been, and may continue to be, highly volatile, and such volatility could cause the market price of our common stock to decrease and could cause you to lose some or all of your investment in our common stock. During the two year period ended December 31, 2019, the market price of our common stock fluctuated from a high of \$90.74 per share to a low of \$1.35 per share, after giving effect to the one-for-thirteen Reverse Stock Split effected on December 11, 2019. The market price of our common stock may continue to fluctuate significantly in response to numerous factors, some of which are beyond our control, such as:

- the announcement of favorable or unfavorable news regarding us, including our product development efforts and regulatory clearance activities;
- the achievement of commercial sales of our products;
- the announcement of new products or product enhancements by us or our competitors;
- developments concerning intellectual property rights and regulatory approvals;
- variations in our and our competitors' results of operations;
- changes in earnings estimates or recommendations by securities analysts, if our common stock is covered by analysts;
- developments in surgical robotics;
- the results of product liability or intellectual property lawsuits;
- future issuances of common stock or other securities;
- the addition or departure of key personnel;
- the reduced volume of stock trades that may result as a consequence of the Reverse Stock Split;
- announcements by us or our competitors of acquisitions, investments or strategic alliances; and
- general market conditions and other factors, including factors unrelated to our operating performance.

Our stockholders have experienced dilution of their percentage ownership of our stock and may experience additional dilution in the future.

We have raised significant capital through the issuance of our common stock and warrants and anticipate that we will need to raise substantial additional capital in order to continue our operations and achieve our business objectives. We have two effective shelf registration statements under which we have the current ability to raise up to approximately \$180 million in future financings, as well as our existing at-the-market, or ATM, offering and the recently announced equity line financing under which we may raise up to \$25 million through the issuance of common stock over 36 months. Any issuances under the ATM offering or equity line financing cannot commence until June 30, 2020. We cannot assure you that we will be able to sell shares or other securities in any offering at a price per share that is equal to or greater than the price per share paid by investors in previous

offerings, and investors purchasing shares or other securities in the future could have rights superior to existing stockholders. The price per share at which we sell additional shares of our common stock or other securities convertible into or exchangeable for our common stock in future transactions may be higher or lower than the price per share in previous offerings. The future issuance of the Company's equity securities will further dilute the ownership of our outstanding common stock. The market price of our common stock has been, and may continue to be, highly volatile, and such volatility could cause the market price of our common stock to decrease and could cause you to lose some or all of your investment in our common stock.

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

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

We issued 24,900,000 Series B warrants in May 2017; the outstanding warrants must be revalued each reporting period. In addition, we owe contingent consideration to Sofar under the Purchase Agreement that is also revalued each reporting period. Such assessments involve the use of estimates that could later be found to differ materially from actual results.

On April 28, 2017, we sold 24.9 million units, each consisting of approximately 0.077 shares of common stock, a Series A warrant to purchase approximately 0.077 shares of common stock, and a Series B warrant to purchase approximately 0.058 shares of common stock, at a public offering price of \$13.00 per unit for aggregate gross proceeds of \$24.9 million in an underwritten firm commitment public offering. As of December 31, 2017, all Series A warrants were exercised. The outstanding Series B warrants contain provisions, often referred to as "down-round protection" that has led to adjustments of the exercise price and number of underlying warrant shares with respect to future issuances by the Company of its securities, including its common stock or convertible securities or debt securities. The "down-round protection" has led to and may continue to lead to additional adjustments of the exercise price and number of underlying warrant shares in the future. As of February 24, 2020, Series B warrants to acquire 160,266 shares of common stock at an exercise price of \$1.24 per share stock were outstanding. In addition, the third tranche of the contingent consideration to be paid to Sofar under the Purchase Agreement remains outstanding, to be paid if the designated milestone is met.

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

The surgical robotics industry is increasingly competitive, which can negatively impact our commercial opportunities.

The life sciences industry is highly competitive, and we face significant competition from many medical device companies that are researching and marketing products designed to address minimally invasive and robotic-assisted surgery, including new entrants in the competitive market. We are currently commercializing the Senhance System in the United States with FDA 510(k) clearance, in Europe which accepts a CE Mark, the

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Middle East and selected countries in Asia. We face significant competition in such markets. Many of our competitors, including Intuitive Surgical, have significantly greater financial, manufacturing, marketing and product development resources than we do. Some of the medical device companies we compete with or expect to compete with include Johnson & Johnson/Verb Surgical Inc., Medtronic plc, Intuitive Surgical Inc., and CMR Surgical Ltd. and a number of minimally invasive surgical device and robotic surgical device manufacturers and providers of products and therapies that are designed to reduce the need for or attractiveness of surgical intervention. In addition, many other universities and private and public research institutions are or may become active in research involving surgical devices for minimally invasive and robotic-assisted surgery.

We are also expanding the potential market for robotic surgical systems with our focus on laparoscopic surgery. Such expansion may lead to additional competition with companies with sufficiently higher resources than ours.

We believe that our ability to successfully compete will depend on, among other things:

- the efficacy, safety and reliability of our products;
- our ability to commercialize and market our cleared or approved products;
- the completion of our development efforts and receipt of regulatory clearance or approval for instruments and accessories to support the use of the Senhance System;
- the cost of ownership and use of our products in relation to alternative devices;
- the timing and scope of regulatory clearances or approvals, including any expansion of the indications of use for our products;
- whether our competitors substantially reduce the cost of ownership and use of an alternative device;
- our ability to protect and defend intellectual property rights related to our products;
- our ability to have our partners manufacture and sell commercial quantities of any cleared or approved products to the market;
- the availability of adequate coverage and reimbursement by third-party payors for the procedures in which our products are used;
- our ability to adapt to changes in the regulatory environment;
- the effectiveness of our sales and marketing efforts; and
- acceptance of future products by physicians and other health care providers.

If our competitors market products that are more effective, safer, easier to use or less expensive than our products or future products, or that reach the market sooner than our products, we may not achieve commercial success. In addition, the medical device industry is characterized by rapid technological change. It may be difficult for us to stay abreast of the rapid changes in each technology. If we fail to stay at the forefront of technological change, we may be unable to compete effectively. Technological advances or products developed by our competitors may render our technologies or products obsolete or less competitive.

We anticipate that the highly competitive surgical robotics environment can lead our competitors to attempt to slow or derail our commercial progress. We are using our best efforts to enter the commercial markets effectively and efficiently while maintaining compliance with all regulatory and legal requirements. Responding to the actions of our competitors will require the attention of our management and may distract the management team from its focus on our commercial operations and lead to increased costs of commercialization, which could have a negative impact on our financial position.

We also anticipate that the competitive surgical robotics environment will become more intense because of increased consolidation by companies in the health care industry looking to achieve cost reductions. Such consolidation may have an adverse effect on our business operations.

We utilize distributors for a portion of our sales, which subjects us to a number of risks that could harm our business.

We use distributors for sales and service of our products in certain foreign countries. If these relationships are terminated and not replaced, our revenues and/or ability to sell or service our products in the markets serviced by these distributors could be adversely affected. The actions of our distributors may affect our ability to effectively market our products in certain foreign countries or regulatory jurisdictions if the distributor holds the regulatory authorization in such countries or within such regions and causes, by action or inaction, the suspension of such marketing authorization or sanctions for non-compliance. It may be difficult, expensive and time consuming for us to re-establish market access or regulatory compliance in such case.

We face risks arising from sole suppliers of components and our ability to meet delivery schedules for sales of our products.

The Senhance System is manufactured for us under contract by a third party manufacturer. We or our manufacturer acquire raw materials and components of the Senhance System from vendors, some of which are sole suppliers. Although we believe that we have the manufacturing and inventory reserves to meet our anticipated Senhance System sales for the foreseeable future, we are currently taking steps to develop redundant manufacturing and supply alternatives. We cannot assure you that we will be successful in developing these redundant supply and manufacturing capabilities. If we are not successful, our business operations could suffer.

Because our design, development and manufacturing capabilities are limited, we rely on third parties to design, develop, manufacture or supply some of our products. An inability to find additional or alternate sources for these services and products could materially and adversely affect our financial condition and results of operations.

We have used third-party design and development sources to assist in the design and development of our medical device products. In the future, we may choose to use additional third-party sources for the design and development of our products. If these design and development partners are unable to provide their services in the timeframe or to the performance level that we require, we may not be able to establish a contract and obtain a sufficient alternative supply from another supplier on a timely basis and in the manner that we require.

Our ability to replace any then-existing manufacturer may be difficult because the number of potential manufacturers is limited and, in the case of Class III devices, the FDA must approve any replacement manufacturer before manufacturing can begin. The process of identifying and engaging new manufacturers may be time-consuming and costly. It may be difficult or impossible for us to identify and engage a replacement manufacturer on acceptable terms in a timely manner, or at all. This may adversely affect our product availability and, as a result, our business.

Reliance on third parties to manufacture or supply some of our products may harm our business if such third parties do not meet regulatory and performance standards.

Our products require precise, high quality manufacturing. We and our contract manufacturers will be subject to ongoing periodic unannounced inspection by the FDA and non-U.S. regulatory authorities to ensure strict compliance with the quality systems regulations, current “good manufacturing practices” and other applicable government regulations and corresponding standards. If we or our contract manufacturers fail to achieve and maintain high manufacturing standards in compliance with QSR, we may experience manufacturing errors resulting in patient injury or death, product recalls or withdrawals, delays or interruptions of production or failures in product testing or delivery, delay or prevention of filing or approval of marketing applications for our products, cost overruns or other problems that could seriously harm our business.

Any performance failure by us or on the part of our design and development partners or contract manufacturers could delay product development or regulatory clearance or approval of our products, or commercialization of our products and future products, depriving us of potential product revenue and resulting in additional losses. In addition, our dependence on any third party for design, development or manufacturing could adversely affect our future profit margins.

We sold our SurgiBot System assets in 2017, and we may not obtain the royalty income we anticipate from such sale.

In December 2017, we transferred ownership of the SurgiBot System assets to GBIL. The agreements provide rights to the purchaser to manufacture, or have manufactured, the SurgiBot System in China, and provides exclusive distribution rights to the Chinese market. The agreement provides us with minimum royalties of \$14.0 million over a future five-year period. If the buyer is not successful in gaining Chinese regulatory approval or marketing the SurgiBot System, we will only receive such minimum royalties, decreasing the return on the funds expended in the development of the SurgiBot System.

We had significant management changes in the fourth quarter of 2019. Such changes could divert attention from the operation of the business and create uncertainty.

Joseph P. Slattery, our former chief financial officer, retired on December 31, 2019. In January 2020 we hired Brett Farabaugh as our interim Chief Financial Officer. A search is in process for a new chief financial officer but we may have difficulty recruiting a new chief financial officer with the current issues facing the Company.

On November 8, 2019, we announced the departure of Todd M. Pope as our president and chief executive officer, and as a member of our Board of Directors, and announced the appointment of Anthony Fernando as president and chief executive officer and his election to the Board of Directors. Any such significant management changes can divert focus away from the operation of the business and could create uncertainty in our personnel. We cannot assure you that the change in senior leadership will not have an adverse impact on the Company and its financial condition.

Our commercial success depends significantly on our ability to operate without infringing the patents and other proprietary rights of third parties.

Other entities may have or obtain patents or proprietary rights that could limit our ability to manufacture, use, sell, offer for sale or import products or impair our competitive position. In addition, to the extent that a third party develops new technology that covers our products, we may be required to obtain licenses to that technology, which licenses may not be available or may not be available on commercially reasonable terms, if at all. If licenses are not available to us on acceptable terms, we will not be able to market the affected products or conduct the desired activities, unless we challenge the validity, enforceability or infringement of the third-party patent or circumvent the third-party patent, which would be costly and would require significant time and attention of our management. Third parties may have or obtain valid and enforceable patents or proprietary rights that could block us from developing products using our technology. Our failure to obtain a license to any technology that we require may materially harm our business, financial condition and results of operations.

If we become involved in patent litigation or other proceedings related to a determination of rights, we could incur substantial costs and expenses, substantial liability for damages or be required to stop our product development and commercialization efforts, any of which could materially adversely affect our liquidity, business prospects and results of operations.

Third parties may sue us for infringing their patent rights. Likewise, we may need to resort to litigation to enforce a patent issued or licensed to us or to determine the scope and validity of proprietary rights of others. In addition, a third party may claim that we have improperly obtained or used its confidential or proprietary information. Furthermore, in connection with our third-party license agreements, we generally have agreed to indemnify the licensor for costs incurred in connection with litigation relating to intellectual property rights. The cost to us of any litigation or other proceeding relating to intellectual property rights, even if resolved in our favor, could be substantial, and the litigation would divert our management's efforts. Some of our competitors may be able to sustain the costs of complex patent litigation more effectively than us because they have substantially greater resources. Uncertainties resulting from the initiation and continuation of any litigation could limit our ability to continue our operations.

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If any parties successfully claim that our creation or use of proprietary technologies infringes upon their intellectual property rights, we might be forced to pay damages, potentially including treble damages, if we are found to have willfully infringed on such parties' patent rights. In addition to any damages we might have to pay, a court could require us to stop the infringing activity or obtain a license. Any license required under any patent may not be made available on commercially acceptable terms, if at all. In addition, such licenses are likely to be non-exclusive and, therefore, our competitors may have access to the same technology licensed to us. If we fail to obtain a required license and are unable to design around a patent, we may be unable to effectively market some of our technology and products, which could limit our ability to generate revenues or achieve profitability and possibly prevent us from generating revenue sufficient to sustain our operations.

For our Senhance System, we rely on our license from the European Union, and any loss of our rights under such license agreement, or failure to properly prosecute, maintain or enforce the patent applications underlying such license agreement, could materially adversely affect our business prospects for the Senhance System.

Some of the patents and patent applications in our patent portfolio related to the Senhance System are licensed to TransEnterix Italia under a license agreement with the European Union. Presently, we rely on such licensed technology for our Senhance System products and may license additional technology from the European Union or other third parties in the future. The EU license agreement gives us rights for the commercial exploitation of the licensed patents, patent applications and know-how, subject to certain provisions of the license agreement. Failure to comply with these provisions could result in the loss of our rights under the EU license agreement. Our inability to rely on these patents and patent applications which are the basis of certain aspects of our Senhance System technology would have an adverse effect on our business.

Further, our success will depend in part on the ability of us, the European Union and other third-party licensors to obtain, maintain and enforce patent protection for our licensed intellectual property and, in particular, those patents to which we have secured exclusive rights. We, the European Union or other third-party licensors may not successfully prosecute the patent applications which are licensed to us, may fail to maintain these patents, and may determine not to pursue litigation against other companies that are infringing these patents, or may pursue such litigation less aggressively than necessary to obtain an acceptable outcome from any such litigation. Without protection for the intellectual property we have licensed, other companies might be able to offer substantially identical products for sale, which could materially adversely affect our competitive business position, business prospects and results of operations.

If we or our licensors are unable to protect the confidentiality of our proprietary information and know-how, the value of our technology and products could be adversely affected.

In addition to patent protection, we also rely on other proprietary rights, including protection of trade secrets, know-how and confidential and proprietary information. To maintain the confidentiality of trade secrets and proprietary information, we will seek to enter into confidentiality agreements with our employees, consultants and collaborators upon the commencement of their relationships with us. These agreements generally require that all confidential information developed by the individual or made known to the individual by us during the course of the individual's relationship with us be kept confidential and not disclosed to third parties. Our agreements with employees also generally provide and will generally provide that any inventions conceived by the individual in the course of rendering services to us shall be our exclusive property. However, we may not obtain these agreements in all circumstances, and individuals with whom we have these agreements may not comply with their terms. In the event of unauthorized use or disclosure of our trade secrets or proprietary information, these agreements, even if obtained, may not provide meaningful protection, particularly for our trade secrets or other confidential information. To the extent that our employees, consultants or contractors use technology or know-how owned by third parties in their work for us, disputes may arise between us and those third parties as to the rights in related inventions. Adequate remedies may not exist in the event of unauthorized use or disclosure of our confidential information. The disclosure of our trade secrets would impair our competitive position and may materially harm our business, financial condition and results of operations.

If we are unable to obtain and enforce patent protection for our products, our business could be materially harmed.

Our success depends, in part, on our ability to protect proprietary methods and technologies that we develop or license under the patent and other intellectual property laws of the United States and other countries, so that we can prevent others from unlawfully using our inventions and proprietary information. However, we may not hold proprietary rights to some patents required for us to commercialize our proposed products. Because certain U.S. patent applications are confidential until patents issue, such as applications filed prior to November 29, 2000, or applications filed after such date which will not be filed in foreign countries, third parties may have filed patent applications for technology covered by our pending patent applications without our being aware of those applications, and our patent applications may not have priority over those applications. For this and other reasons, we or our third-party collaborators may be unable to secure desired patent rights, thereby losing desired exclusivity. If licenses are not available to us on acceptable terms, we will not be able to market the affected products or conduct the desired activities, unless we challenge the validity, enforceability or infringement of the third-party patent or otherwise circumvent the third-party patent.

Our strategy depends on our ability to promptly identify and seek patent protection for our discoveries. In addition, we may rely on third-party collaborators to file patent applications relating to proprietary technology that we develop jointly during certain collaborations. The process of obtaining patent protection is expensive and time-consuming. If our present or future collaborators fail to file and prosecute all necessary and desirable patent applications at a reasonable cost and in a timely manner, our business will be adversely affected. Despite our efforts and the efforts of our collaborators to protect our proprietary rights, unauthorized parties may be able to develop and use information that we regard as proprietary.

The issuance of a patent provides a presumption, but does not guarantee that it is valid. Any patents we have obtained, or obtain in the future, may be challenged or potentially circumvented. Moreover, the United States Patent and Trademark Office, or the USPTO, may commence interference proceedings involving our patents or patent applications. Any such challenge to our patents or patent applications would be costly, would require significant time and attention of our management and could have a material adverse effect on our business. In addition, future court decisions may introduce uncertainty in the enforceability or scope of any patent, including those owned by medical device companies.

Our pending patent applications may not result in issued patents. The patent position of medical device companies, including ours, is generally uncertain and involves complex legal and factual considerations. The standards that the USPTO and its foreign counterparts use to grant patents are not always applied predictably or uniformly and can change. There is also no uniform, worldwide policy regarding the subject matter and scope of claims granted or allowable in medical device patents. Accordingly, we do not know the degree of future protection for our proprietary rights or the breadth of claims that will be allowed in any patents issued to us or to others. The legal systems of certain countries do not favor the aggressive enforcement of patents, and the laws of foreign countries may not protect our rights to the same extent as the laws of the United States. Therefore, the enforceability or scope of our owned or licensed patents in the United States or in foreign countries cannot be predicted with certainty, and, as a result, any patents that we own or license may not provide sufficient protection against competitors. We may not be able to obtain or maintain patent protection for our pending patent applications, those we may file in the future, or those we may license from third parties.

We cannot assure you that any patents that will issue, that may issue or that may be licensed to us will be enforceable or valid or will not expire prior to the commercialization of our products, thus allowing others to more effectively compete with us. Therefore, any patents that we own or license may not adequately protect our future products.

Even if we obtain regulatory clearances or approvals for our products, the terms thereof and ongoing regulation of our products may limit how we manufacture and market our products, which could materially impair our ability to generate anticipated revenues.

Once regulatory clearance or approval has been granted, the cleared or approved product and its manufacturer are subject to continual review. Any cleared or approved product may be promoted only for its indicated uses. In addition, if the FDA or other non-U.S. regulatory authorities clear or approve any of our products, the labeling, packaging, adverse event reporting, storage, advertising and promotion for the product will be subject to extensive regulatory requirements. We and any outsourced manufacturers of our products are also required to comply with the FDA's QSR, or similar requirements of non-U.S. regulatory authorities which includes requirements relating to quality control and quality assurance, as well as the corresponding maintenance of records and documentation as well as other quality system requirements and regulations from non-U.S. regulatory authorities. Further, regulatory agencies must approve our manufacturing facilities for Class III devices before they can be used to manufacture our products, and all manufacturing facilities are subject to ongoing regulatory inspection. If we fail to comply with the regulatory requirements of the FDA, either before or after clearance or approval, or other non-U.S. regulatory authorities, or if previously unknown problems with our products, manufacturers or manufacturing processes are discovered, we could be subject to administrative or judicially imposed sanctions, including:

- restrictions on the products, manufacturers or manufacturing process;
- adverse inspectional observations (Form 483), warning letters, non-warning letters incorporating inspectional observations, or consent decrees;
- civil or criminal penalties or fines;
- injunctions;
- product seizures, detentions or import bans;
- voluntary or mandatory product recalls and publicity requirements;
- suspension or withdrawal of regulatory clearances or approvals;
- total or partial suspension of production;
- imposition of restrictions on operations, including costly new manufacturing requirements;
- refusal to clear or approve pending applications or premarket notifications; and
- import and export restrictions.

Any of these sanctions could have a material adverse effect on our reputation, business, results of operations and financial condition. Furthermore, our key component suppliers may not currently be or may not continue to be in compliance with all applicable regulatory requirements, which could result in our failure to produce our products on a timely basis and in the required quantities, if at all.

In addition, the FDA and other non-U.S. regulatory authorities may change their policies and additional regulations may be enacted that could prevent or delay regulatory clearance or approval of our products. We cannot predict the likelihood, nature or extent of government regulation that may arise from future legislation or administrative action, either in the United States or abroad. If we are not able to maintain regulatory compliance, we would likely not be permitted to market our future products and we may not achieve or sustain profitability.

We may be liable if the FDA or another regulatory agency concludes that we have engaged in the off-label promotion of our products.

Our promotional materials and training methods must comply with FDA and other applicable laws and regulations, including the prohibition of the promotion of the off-label use of the Senhance System and our other

products. Healthcare providers may use our products off-label, as the FDA does not restrict or regulate a physician's choice of treatment within the practice of medicine. However, if the FDA determines that our promotional materials, sales practices or training constitute promotion of an off-label use, it could request that we modify our training or promotional materials or subject us to regulatory or enforcement actions, including the issuance of an untitled letter, a warning letter, injunction, seizure, civil fine and criminal penalties. It is also possible that other federal, state or foreign enforcement authorities might take action if they consider our promotional or training materials to constitute promotion of an unapproved use, which could result in significant fines or penalties. Although we train our marketing and direct sales force to not promote our products for uses outside of their cleared uses and our policy is to refrain from statements that could be considered off-label promotion of our products, the FDA or another regulatory agency could disagree and conclude that we have engaged in off-label promotion. In addition, the off-label use of our products may increase the risk of product liability claims. Product liability claims are expensive to defend and could result in substantial damage awards against us and harm our reputation.

The regulatory approval and clearance processes are expensive, time-consuming and uncertain and may prevent us from obtaining approvals or clearances, as the case may be, for the commercialization of some or all of our products.

Regulatory approval of a PMA or PMA, or supplement or clearance pursuant to a 510(k) premarket notification, or granting of a de novo request is not guaranteed, and the approval or clearance process, as the case may be, is expensive, uncertain and may, especially in the case of the PMA application, take several years. The FDA also has substantial discretion in the medical device clearance process or approval process. Despite the time and expense exerted, failure can occur at any stage, and we could encounter problems that cause us to repeat or perform additional development, standardized testing, pre-clinical studies and clinical trials. The number of pre-clinical studies and clinical trials that will be required for FDA clearance or approval varies depending on the medical device candidate, the disease or condition that the medical device candidate is designed to address, and the regulations applicable to any particular medical device candidate. The FDA or other non-U.S. regulatory authorities can delay, limit or deny clearance or approval of a medical device candidate for many reasons, including:

- a medical device candidate may not be deemed to provide a reasonable assurance of safety or effectiveness, in the case of a PMA application;
- a medical device candidate may not be deemed to be substantially equivalent to a lawfully marketed predicate device through the 510(k) premarket notification process;
- a medical device candidate may not be deemed to be in conformance with applicable standards and regulations;
- FDA or other regulatory officials may not find the data from pre-clinical studies and clinical trials sufficient;
- FDA may not approve our processes or facilities or those of any of our third-party manufacturers for a Class III PMA device;
- other non-U.S. regulatory authorities may not approve our processes or facilities or those of any of our third-party manufacturers, thereby restricting export; or
- FDA or other non-U.S. regulatory authorities may change clearance or approval policies or adopt new regulations.

The laws governing the regulatory approval or clearance pathways in jurisdictions outside of the United States are complex. We need to ensure that our activities, and the activities of our distributors and agents, comply with such laws. If we do not comply with such laws, we may not be able to sell our products, including the Senhance System, in all jurisdictions we have targeted, which could have an adverse effect on our business operations and financial condition.

Once our products are cleared or approved, modifications to our products may require new 510(k) clearances, de novo clearance, premarket approvals or new or amended CE Certificates of Conformity, and may require us to cease marketing or recall the modified products until clearances, approvals or the relevant CE Certificates of Conformity are obtained.

Any modification to a 510(k)-cleared device that could significantly affect its safety or effectiveness, or that would constitute a major change in its intended use requires a new 510(k) clearance or, possibly, a PMA or de novo clearance. The FDA requires every manufacturer to make this determination in the first instance, but the FDA may review such determinations. The FDA may not agree with our decisions regarding whether new clearances or approvals are necessary. If the FDA disagrees with our determinations for any future changes, or prior changes to previously marketed products, as the case may be, we may be required to cease marketing or to recall the modified products until we obtain clearance or approval, and we may be subject to significant regulatory fines or penalties.

Furthermore, the FDA's ongoing review of the 510(k) program may make it more difficult for us to make modifications to our products, either by imposing more strict requirements on when a new 510(k) for a modification to a previously cleared product must be submitted, or applying more onerous review criteria to such submissions. In October 2017, the FDA issued guidance documents addressing when to submit a new 510(k) due to modifications to 510(k) cleared products and the criteria for evaluating substantial equivalence. The interpretation of the guidance documents by the FDA staff could lead to instances where the FDA disagrees with the Company's decision regarding a change, and could result in warning letters and other enforcement actions.

Even after clearance or approval for our products is obtained, we are subject to extensive post-market regulation by the FDA and other regulators. Our failure to meet strict regulatory requirements could require us to pay fines, incur other costs or even close our facilities.

Even after we have obtained the proper regulatory clearance or approval to market a product, the FDA has the power to require us to conduct post-market studies. These studies can be very expensive and time-consuming to conduct. Failure to complete such studies in a timely manner could result in the revocation of clearance or approval and the recall or withdrawal of the product, which could prevent us from generating sales from that product in the United States. The FDA has broad enforcement powers, and any regulatory enforcement actions or inquiries, or other increased scrutiny on us, could dissuade some surgeons from using our products and adversely affect our reputation and the perceived safety and efficacy of our products.

We are also required to comply with the FDA's QSR, which covers the methods used in, and the facilities and controls used for, the design, manufacture, quality assurance, labeling, packaging, sterilization, storage, shipping, installation and servicing of our marketed products. The FDA enforces the QSR through periodic announced and unannounced inspections of manufacturing facilities. In addition, in the future, regulatory authorities and/or customers may require specific packaging of sterile products, which could increase our costs and the price of our products. Later discovery of previously unknown problems with our products, including unanticipated adverse events or adverse events of unanticipated severity or frequency, manufacturing problems, or failure to comply with regulatory requirements such as QSR, may result in changes to labeling, restrictions on such products or manufacturing processes, withdrawal of the products from the market, voluntary or mandatory recalls, a requirement to repair, replace or refund the cost of any medical device we manufacture or distribute, fines, suspension of regulatory approvals, product seizures, injunctions or the imposition of civil or criminal penalties which would adversely affect our business, operating results and prospects.

In Europe, the advertising and promotion of our products is subject to the MDD, as well as other European Economic Area, or EEA, Member State legislation governing the advertising and promotion of medical devices. The MDR, which will replace the MDD in May 2020 after a three-year transition period, will impose significant additional premarket and post-market certification requirements on medical devices marketed in the EU. EEA Member State legislation may also restrict or impose limitations on our ability to advertise our products directly

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to the general public. In addition, voluntary EU and national codes of conduct provide guidelines on the advertising and promotion of our products to the general public and may impose limitations on our promotional activities with healthcare providers harming our business, operating results and financial condition. If we are unable to obtain timely, updated post-market certifications for our products under the MDR, or experience difficulty scheduling with a Notified Body, our business prospects in the EU could be materially adversely affected, which could have a material adverse effect on our financial results.

If one of our products, or a malfunction of one of our products, causes or contributes to a death or a serious injury, we will be subject to medical device reporting regulations, which can result in voluntary corrective actions or agency enforcement actions.

Under the FDA's MDR regulations, we are required to report to the FDA any incident in which our product may have caused or contributed to a death or serious injury or in which our product malfunctioned and, if the malfunction were to recur, would likely cause or contribute to death or serious injury. Repeated product malfunctions may result in a voluntary or involuntary product recall, which could divert managerial and financial resources, impair our ability to manufacture our products in a cost-effective and timely manner, and have an adverse effect on our reputation, results of operations and financial condition. We are also required to follow detailed recordkeeping requirements for all firm-initiated medical device corrections and removals, and to report such corrective and removal actions to the FDA if they are carried out in response to a risk to health and have not otherwise been reported under the MDR regulations.

All manufacturers bringing medical devices to market in the EEA are legally bound to report any incident that led or might have led to the death or serious deterioration in the state of health of a patient, user or other person, and which the manufacturer's device is suspected to be a contributory cause, to the competent authority in whose jurisdiction the incident occurred. In such case, the manufacturer must file an initial report with the relevant competent authority, which would be followed by further evaluation or investigation of the incident and a final report indicating whether further action is required. Any adverse event involving our products could result in future voluntary corrective actions, such as recalls or customer notifications, or agency action, such as inspection or enforcement action. Adverse events involving our products have been reported to us in the past, and we cannot guarantee that they will not occur in the future. Any corrective action, whether voluntary or involuntary, will require the dedication of our time and capital, distract management from operating our business and may harm our reputation and financial results.

A recall of our products, either voluntarily or at the direction of the FDA or another governmental authority, or the discovery of serious safety issues with our products, could have a significant adverse impact on us.

The FDA and similar foreign governmental authorities such as the competent authorities of the EEA countries have the authority to require the recall of commercialized products in the event of material deficiencies or defects in design or manufacture or in the event that a product poses an unacceptable risk to health. Manufacturers may, under their own initiative, recall a product if any material deficiency in a device is found. A government-mandated or voluntary recall by us or one of our distributors could occur as a result of an unacceptable risk to health, component failures, manufacturing errors, design or labeling defects or other deficiencies and issues.

Any future recalls of any of our products would divert managerial and financial resources and could have an adverse effect on our reputation, results of operations and financial condition, which could impair our ability to produce our products in a cost-effective and timely manner in order to meet our customers' demands. We may also be required to bear other costs or take other actions that may have a negative impact on our future sales and our ability to generate profits.

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U.S. legislative or FDA regulatory reforms may make it more difficult and costly for us to obtain regulatory approval of our product candidates and to manufacture, market and distribute our products after approval is obtained.

Legislative changes could significantly alter the statutory provisions governing the regulatory approval, manufacture and marketing of regulated products. In addition, FDA regulations and guidance could be revised or reinterpreted by the FDA in ways that could significantly affect our business and our products. Any new regulations or revisions, or reinterpretations of existing regulations, may impose additional costs or lengthen review times of future products. It is impossible to predict whether legislative changes will be enacted or FDA regulations, guidance or interpretations will be changed, and what the impact of such changes, if any, may be.

Even if we receive regulatory clearance or approval to market our products, the market may not be receptive to our products, which could undermine our financial viability.

Even if our products obtain regulatory clearance or approval, resulting products may not gain market acceptance among physicians, patients, health care payors and/or the medical community. We have experienced minimal sales of our Senhance System, to date. We believe that the degree of market acceptance will depend on a number of factors, including:

- timing of market introduction of competitive products;
- safety and efficacy of our products;
- physician training in the use of our products;
- prevalence and severity of any side effects;
- potential advantages or disadvantages over alternative treatments;
- strength of marketing and distribution support; and
- price of our future products, both in absolute terms and relative to alternative treatments.

If applicable, availability of coverage and reimbursement from government and other third-party payors can also impact the acceptance of our product offerings.

If we fail to attract and retain key management and professional personnel, we may be unable to successfully commercialize or develop our products.

We will need to effectively manage our operational, sales and marketing, development and other resources in order to successfully pursue our commercialization and research and development efforts for our existing and future products. Our success depends on our continued ability to attract, retain and motivate highly qualified personnel. If we are not successful in retaining and recruiting highly qualified personnel, our business may be harmed as a result.

We may be subject, directly or indirectly, to federal and state anti-kickback, fraud and abuse, false claims, privacy and security and physician payment transparency laws. If we are unable to comply, or have not fully complied, with such laws, we could face substantial penalties.

Our business activities are subject to additional healthcare regulation and enforcement by the federal government and by authorities in the states and foreign jurisdictions in which we conduct our business. Such laws include, without limitation, state and federal anti-kickback, fraud and abuse, false claims, privacy and security and physician payment transparency laws. If our operations are found to be in violation of any of such laws that apply to us, we may be subject to penalties, including, without limitation, civil and criminal penalties, damages, fines, the curtailment or restructuring of our operations, exclusion from participation in federal and state healthcare programs and imprisonment, any of which could adversely affect our ability to operate our business and our financial results.

Current legislation and future legislative or regulatory reform of the health care system may affect our ability to sell our products profitably.

In the United States, there have been, and we expect there to continue to be, a number of legislative and regulatory initiatives, at both the federal and state government levels, to change the healthcare system in ways that, if approved, could affect our ability to sell our products profitably. While many of the proposed policy changes require congressional approval to implement, we cannot assure you that reimbursement payments under governmental and private third-party payor programs to health care providers will remain at levels comparable to present levels or will be sufficient to cover the costs allocable to patients eligible for reimbursement under these programs. Any changes that lower reimbursement rates under Medicare, Medicaid or private payor programs could negatively affect our business.

To the extent that any of our products are deemed to be durable medical equipment, or DME, they may be subject to distribution under Medicare's Competitive Acquisition regulations, which could adversely affect the amount that we can seek from payors. Non-DME devices used in surgical procedures are normally paid directly by the hospital or health care provider and not reimbursed separately by third-party payors. As a result, these types of devices are subject to intense price competition that can place a small manufacturer at a competitive disadvantage as hospitals and health care providers attempt to negotiate lower prices for products such as the ones we develop and sell. With the continued uncertainty regarding the status of the 2010 Health Care Reform Legislation, at this time, the Company is not certain as to the impact of federal health care legislation on its business.

Further, the 2010 Health Care Reform Legislation includes the Open Payments Act (formerly referred to as the Physician Payments Sunshine Act), which, in conjunction with its implementing regulations, requires certain manufacturers of certain drugs, biologics, and devices that are reimbursed by Medicare, Medicaid and the Children's Health Insurance Program to report annually certain payments or "transfers of value" provided to physicians and teaching hospitals and to report annually ownership and investment interests held by physicians and their immediate family members during the preceding calendar year. We provided reports under the Open Payments Act to the Centers for Medicare & Medicaid Services, or CMS. The failure to report appropriate data accurately, timely, and completely could subject us to significant financial penalties. Other countries and several states currently have similar laws and more may enact similar legislation.

We are unable to predict what additional legislation or regulation relating to the health care industry or third-party coverage and reimbursement may be enacted in the future or what effect such legislation or regulation would have on our business. Any cost containment measures or other health care system reforms that are adopted could have a material and adverse effect on our ability to commercialize our existing and future products successfully.

We may become subject to potential product liability claims, and we may be required to pay damages that exceed our insurance coverage.

Our business exposes us to potential product liability claims that are inherent in the design, testing, manufacture, sale and distribution of our products and each of our product candidates that we are seeking to introduce to the market. Surgical medical devices involve significant risks of serious complications, including bleeding, nerve injury, paralysis, infection, and even death. Any product liability claim brought against us, with or without merit, could result in the increase of our product liability insurance rates or in our inability to secure coverage in the future on commercially reasonable terms, if at all. In addition, if our product liability insurance proves to be inadequate to pay a damages award, we may have to pay the excess of this award out of our cash reserves, which could significantly harm our financial condition. If longer-term patient results and experience indicate that our products or any component of a product causes tissue damage, motor impairment or other adverse effects, we could be subject to significant liability. A product liability claim, even one without merit, could harm our reputation in the industry, lead to significant legal fees, and result in the diversion of management's attention from managing our business.

If we experience an intrusion of or disruption to our information technology systems, we may be harmed.

We rely on sophisticated information technology systems to operate our business. Our systems are subject to cyber-attacks, viruses, worms, malicious software programs, outages, equipment malfunction or constraints, software deficiencies, human error and other malicious intrusions, which may materially disrupt our business and compromise our data. We may not be able to anticipate and prevent such disruptions or intrusions, and we may not be able to mitigate them when and if they occur. Our ability to effectively operate our business and comply with applicable laws and regulations may be materially impaired by any such disruption or intrusion. Furthermore, we may incur significant costs in responding to any such disruption or intrusion and remedying our systems. In such event we may also be subject to litigation and other potential liability, which could materially impact our business and financial condition. Moreover, a breach or disruption of our information technology systems could damage our reputation.

Risks Related to This Offering

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

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

There is no public market for the Series A Preferred Stock, Series C warrants or Series D warrants to purchase common stock in this offering.

There is no established public trading market for the Series A Preferred Stock, Series C warrants or Series D warrants being offered in this offering, and we do not expect a market to develop. In addition, we do not intend to apply for listing the warrants on any national securities exchange or other trading market. Without an active market, the liquidity of the Series A Preferred Stock, Series C warrants or Series D warrants will be limited.

If you purchase securities in this offering, you will experience immediate dilution as a result of this offering.

Because the combined price per share and warrant being offered may be higher than net tangible book value per share of our common stock, you will experience dilution to the extent of the difference between the offering price per share of common stock you pay in this offering and the net tangible book value per share of our common stock immediately after this offering. Our net tangible book value as of September 30, 2019 was approximately \$31.1 million, or \$1.58 per share of common stock. Net tangible book value per share is equal to our total tangible assets minus total liabilities, all divided by the number of shares of common stock outstanding. In addition, if the warrants offered hereby are exercised, you will experience further dilution upon such exercises.

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

The existence of our outstanding options and warrants, including the remaining Series B warrants, may adversely affect our stock price due to sales of a large number of shares or the perception that such sales could occur. As a result of the Series B warrant adjustment feature and after giving effect to the December 2019 reverse stock split, the exercise price of the remaining outstanding Series B warrants has been adjusted from \$13.00 per share to \$1.24 per share and the number of shares of common stock reserved for and issuable upon the exercise of

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outstanding Series B warrants has been adjusted to 160,226 shares at February 24, 2020. Exercise of outstanding options and warrants, or any future issuance of additional shares of common stock or other equity securities, including but not limited to options, warrants or other derivative securities convertible into our common stock, may result in significant dilution to our stockholders and may decrease our stock price, and which will dilute purchasers of securities in this offering. The exercise price and number of shares of common stock issuable upon exercise of our Series B warrants may be further adjusted as a result of the sale of securities under this prospectus. These factors also could make it more difficult to raise funds through future offerings of common stock or warrants, and could adversely impact the terms under which we could obtain additional equity capital.

If you purchase securities in this offering, you may experience future dilution as a result of future equity offerings or other equity issuances.

In order to raise additional capital, we may in the future offer and issue additional shares of our common stock or other securities convertible into or exchangeable for our common stock. Under our effective shelf registration statements we can raise up to an additional approximately \$180 million through the issuance of equity or debt securities. We cannot assure you that we will be able to sell shares or other securities in any offering at a price per share that is equal to or greater than the price per share paid by investors in previous offerings, and investors purchasing shares or other securities in the future could have rights superior to existing stockholders. The price per share at which we sell additional shares of our common stock or other securities convertible into or exchangeable for our common stock in future transactions may be higher or lower than the price per share in previous offerings. Further, we may choose to raise additional capital due to market conditions or strategic considerations, even if we believe we have sufficient funds for our current or future operating plans.

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.

USE OF PROCEEDS

We estimate that the net proceeds to us from this offering, based on the sale of Series A Units at the public offering price of \$ per unit and of Series B Units at the public offering price of \$ per unit, after deducting underwriting discounts and commissions and estimated offering expenses payable by us, will be approximately \$ million and will be approximately \$ million if the underwriters exercise the over-allotment option.

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.

These expected uses of proceeds represent our intentions based upon our current plans and business conditions, which could change in the future as our plans and business conditions evolve. The amounts and timing of our actual expenditures may vary significantly depending on numerous factors, including those described in “Special Note Regarding Forward-Looking Statements” above. As a result, our management will have broad discretion in the application of the net proceeds from this offering, and investors will be relying on the judgment of our management regarding the application of the net proceeds from this offering. The timing and amount of our actual expenditures will be based on many factors, including cash flows from operations and the anticipated growth of our business.

DESCRIPTION OF SECURITIES WE ARE OFFERING

Units

We are offering Class A Units at a public offering price of \$ per Class A Unit. Each Class A Unit consists of one share of our common stock, par value \$0.001 per share, one warrant to purchase common stock that expires on the first anniversary of the date of issuance, collectively referred to as the Series C warrants, and one warrant to purchase common stock that expires on the fifth anniversary of the date of issuance, collectively referred to as the Series D warrants. The Class A Units will not be certificated and the shares of common stock and warrants constituting such units are immediately separable and will be issued separately in this offering.

We are also offering to those purchasers whose purchase of Class A Units in this offering would result in the purchaser, together with its affiliates and certain related parties, beneficially owning more than 4.99% (or, at the election of the purchaser, 9.99%) of our outstanding common stock following the consummation of this offering, the opportunity to purchase, if they so choose, in lieu of the number of Class A Units that would result in ownership in excess of 4.99% (or, at the election of the purchaser, 9.99%), Class B Units at a public offering price of \$ per Class B Unit. Each Class B Unit consists of one share of Series A Preferred Stock, par value \$0.0001 per share, referred to as the Series A Preferred Stock, convertible into one share of common stock, a Series C warrant to purchase one share of common stock and a Series D warrant to purchase one share of common stock (together with the shares of common stock underlying such shares of Series A Preferred Stock and such warrants). The Class B Units will not be certificated and the shares of Series A Preferred Stock and the warrants constituting such units are immediately separable and will be issued separately in this offering.

Common Stock

The material terms and provisions of our common stock are described under the caption “Description of Capital Stock” beginning on page 16 of the accompanying prospectus. Our common stock is listed on the NYSE American under the symbol “TRXC.” Our transfer agent is Continental Stock Transfer and Trust Company.

Series A Preferred Stock

General.

In connection with this offering, our board of directors will designate shares of our preferred stock as Series A Preferred Stock. The preferences and rights of the Series A Preferred Stock will be as set forth in a Certificate of Designation, referred to as the Series A Certificate of Designation, to be filed as an exhibit to the registration statement of which this prospectus is a part.

Conversion.

Each share of Series A Preferred Stock will be convertible at any time at the holder’s option into one share of common stock, which conversion ratio will be subject to adjustment for stock splits, stock dividends, distributions, subdivisions and combinations. Notwithstanding the foregoing, the Series A Certificate of Designation will further provide that we shall not effect any conversion of the Series A Preferred Stock, with certain exceptions, to the extent that, after giving effect to an attempted conversion, the holder of Series A Preferred Stock (together with such holder’s affiliates, and any persons acting as a group together with such holder or any of such holder’s affiliates) would beneficially own a number of shares of Common Stock in excess of 4.99% (or, at the election of the purchaser prior to the date of issuance, 9.99%) of the shares of our common stock then outstanding after giving effect to such exercise (the “Series A Preferred Stock Beneficial Ownership Limitation”).

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Liquidation Preference.

In the event of a liquidation, the holders of Series A Preferred Stock will be entitled to participate on an as-converted-to-common-stock basis with holders of the common stock in any distribution of assets of the Company to the holders of the common stock.

Voting Rights.

With certain exceptions, as described in the Series A Certificate of Designation, the Series A Preferred Stock will have no voting rights. However, as long as any shares of Series A Preferred Stock remain outstanding, the Series A Certificate of Designation will provide that we shall not, without the affirmative vote of holders of a majority of the then-outstanding shares of Series A Preferred Stock: (a) alter or change adversely the powers, preferences or rights given to the Series A Preferred Stock or alter or amend the Series A Certificate of Designation, (b) increase the number of authorized shares of Series A Preferred Stock or (c) effect a stock split or reverse stock split of the Series A Preferred Stock or any like event.

Dividends.

The Series A Certificate of Designation will provide, among other things, that we shall not pay any dividends on shares of common stock (other than dividends in the form of common stock) unless and until such time as we pay dividends on each share of Series A Preferred Stock on an as-converted basis. Other than as set forth in the previous sentence, the Series A Certificate of Designation will provide that no other dividends shall be paid on shares of Series A Preferred Stock and that we shall pay no dividends (other than dividends in the form of common stock) on shares of common stock unless we simultaneously comply with the previous sentence.

Repurchase Restrictions.

The Series A Certificate of Designation will not provide for any restriction on the repurchase of Series A Preferred Stock by us while there is any arrearage in the payment of dividends on the Series A Preferred Stock. There will be no sinking fund provisions applicable to the Series A Preferred Stock.

Redemption.

We will not be obligated to redeem or repurchase any shares of Series A Preferred Stock. Shares of Series A Preferred Stock will not otherwise be entitled to any redemption rights or mandatory sinking fund or analogous fund provisions. Furthermore, Series A Preferred Stock does not have a termination date and can therefore be held perpetually.

Exchange Listing.

We do not intend to apply for listing of the Series A Preferred Stock on any securities exchange or other trading system.

Forum Selection and Waiver of Trial by Jury.

The Series A Certificate of Designation sets the state and federal sitting in the City of New York, Borough of Manhattan (the "New York Courts") as the non-exclusive forum for any legal proceedings concerning the interpretation, enforcement and defense of the transactions contemplated by the Series A Certificate of Designation (the "Forum Provision"); provided, however, that this Forum Provision does not apply to any actions arising under the Securities Act or the Exchange Act. The Forum Provision may impose additional litigation costs on stockholders in pursuing such claims, particularly if the stockholders do not reside in or near the State of New York. Additionally, the Forum Provision may limit our stockholders' ability to bring a claim in a judicial forum that they find favorable for disputes arising under the Series A Certificate of Designation, which may

discourage the filing of such lawsuits. The purchasers of Series A Preferred Stock also waive, to the fullest extent permitted by applicable law, any and all right to trial by jury in any legal proceeding arising out of or relating to the Series A Certificate of Designation; provided, however, that this waiver does not apply to any actions arising under the Securities Act or the Exchange Act. The waiver of a trial by jury may disadvantage a purchaser of the Series A Preferred Stock to the extent a judge might be less likely than a jury to resolve an action in the purchaser's favor. Further, if a court were to find this Forum Provision or the waiver of jury trial inapplicable to, or unenforceable in respect of, an action or proceeding against us, then we may incur additional costs associated with resolving these matters, which could adversely affect our business and financial condition.

Warrants

General

The material terms and provisions of the Series C warrants and the Series D warrants being offered pursuant to this prospectus supplement and the accompanying prospectus are summarized below. The warrants be governed initially by one or more global warrants and by a warrant agency agreement, or the Warrant Agency Agreement, to be entered into on the closing of the offering between us and Continental Stock Transfer and Trust Company, as Warrant Agent. The summary below of the Series C warrants and the Series D warrants and the Warrant Agency Agreement is subject to and qualified in its entirety by the form of global warrant and the Warrant Agency Agreement, which will be filed as exhibits to a Current Report on Form 8-K to be filed by us with the SEC in connection with this offering. You should review a copy of the form of global warrant and of the Warrant Agency Agreement for a complete description of the terms and conditions applicable to the warrants.

Form; Warrant Agency Agreement

The Series C warrants and the Series D warrants will be issued in book entry form to the investors and shall initially be represented by one or more global warrants deposited with the Warrant Agent pursuant to the Warrant Agency Agreement. Each holder will have the right to request that the Warrant Agent issue a warrant certificate evidencing the Series C warrants or the Series D warrants held by such holder by delivering a warrant certificate request notice and following the other requirements set forth in the Warrant Agency Agreement.

Series C Warrants

Each Series C warrant to be issued in this offering as part of Class A Units or Class B Units represents the right to purchase [●] shares of common stock at an initial exercise price of \$ per share. Each warrant may be exercised, in cash or by a cashless exercise at the election of the holders at any time beginning on the date of issuance and from time to time thereafter through and including the fifth anniversary of the issuance date.

The Series C warrants will be exercisable upon issuance and will expire on the one-year anniversary of issuance. The Series C warrants will be exercisable in whole or in part by delivering to the Warrant Agent a completed instruction form for exercise and complying with the requirements for exercise imposed by the Warrant Agent, The Depository Trust Company and the terms of the Series C warrant. If a Series C warrant is held in certificated form, the Series C warrant may be exercised in whole or in part by delivering a warrant exercise form to us and complying with the requirements for exercise under the terms of the Series C warrant. Payment of the exercise price may be made in cash or pursuant to a cashless exercise, in which case the holder would receive upon such exercise the net number of shares of common stock determined according to the formula set forth in the Series C warrant.

Series D Warrants

Each Series D warrant to be issued in this offering as part of Class A Units or Class B Units represents the right to purchase [●] shares of common stock at an initial exercise price of \$ per share. Each warrant may be exercised, in cash or by a cashless exercise at the election of the holders at any time beginning on the date of issuance and from time to time thereafter through and including the fifth anniversary of the issuance date.

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The Series D warrants will be exercisable upon issuance and will expire on the five-year anniversary of issuance. The Series D warrants will be exercisable in whole or in part by delivering to the Warrant Agent a completed instruction form for exercise and complying with the requirements for exercise imposed by the Warrant Agent, The Depository Trust Company and the terms of the Series D warrant. If a Series D warrant is held in certificated form, the Series D warrant may be exercised in whole or in part by delivering a warrant exercise form to us and complying with the requirements for exercise under the terms of the Series D warrant. Payment of the exercise price may be made in cash or pursuant to a cashless exercise, in which case the holder would receive upon such exercise the net number of shares of common stock determined according to the formula set forth in the Series D warrant.

No Fractional Shares

No fractional shares or scrip representing fractional shares shall be issued upon the exercise of the Series C warrants or the Series D warrants. As to any fraction of a share which the holder would otherwise be entitled to purchase upon such exercise, the number of shares of common stock to be issued shall be rounded up to the nearest whole number.

Failure to Timely Deliver Shares

If we fail to deliver to the holder a certificate representing shares issuable upon exercise of a Series C warrant or the Series D warrant or to credit the holder's balance account with Depository Trust Company for such number of shares of common stock to which the holder is entitled upon the holder's exercise of the warrant, in each case, by the delivery date set forth in the applicable warrant, and if after such date the holder is required by its broker to purchase (in an open market transaction or otherwise) or the holder's brokerage firm otherwise purchases, shares of common stock to deliver in satisfaction of a sale by the holder of the warrant shares which the holder anticipated receiving upon such exercise, or a Buy-In, then we shall (A) pay in cash to the holder the amount, if any, by which (x) the holder's total purchase price (including brokerage commissions, if any) for the shares of common stock so purchased exceeds (y) the amount obtained by multiplying (1) the number of warrant shares that we were required to deliver to the holder in connection with the exercise at issue, times (2) the price at which the sell order giving rise to such purchase obligation was executed, and (B) at the option of the holder, either reinstate the portion of the applicable warrant and equivalent number of warrant shares for which such exercise was not honored (in which case such exercise shall be deemed rescinded) or deliver to the holder the number of shares of common stock that would have been issued had we timely complied with our exercise and delivery obligations.

Exercise Limitation

In general, a holder will not have the right to exercise any portion of a Series C warrant or Series D warrant if the holder (together with its Attribution Parties (as defined in each of the warrants)) would beneficially own in excess of 4.99% of the number of shares of our common stock outstanding immediately after giving effect to the exercise, as such percentage ownership is determined in accordance with the terms of the warrant. However, any holder may increase or decrease such percentage to any other percentage not in excess of 9.99% upon notice to us, provided that any increase in this limitation will not be effective until 61 days after such notice from the holder to us and such increase or decrease will apply only to the holder providing such notice.

Adjustment for Stock Splits

The exercise price and the number of shares of common stock purchasable upon the exercise of the Series C warrants and the Series D warrants are subject to adjustment upon the occurrence of specific events, including sales of additional shares of common stock, stock dividends, stock splits, and combinations of our common stock.

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Dividends or Distributions

If we declare or make any dividend or other distribution of its assets (or rights to acquire its assets) to holders of shares of our common stock, by way of return of capital or otherwise (including, without limitation, any distribution of cash, stock or other securities, property, options, evidence of indebtedness or any other assets by way of a dividend, spin off, reclassification, corporate rearrangement, scheme of arrangement or other similar transaction) at any time after the issuance of the warrants, then, in each such case, the holders of the Series C warrants and the Series D warrants shall be entitled to participate in such distribution to the same extent that the holders would have participated therein if the holders had held the number of shares of common stock acquirable upon complete exercise of the warrants.

Purchase Rights

If we grant, issue or sell any shares of our common stock or securities exercisable for, exchangeable for or convertible into our common stock, or rights to purchase stock, warrants, securities or other property pro rata to the record holders of any class of shares of our common stock, referred to as Purchase Rights, then each holder of the Series C warrants and the Series D warrants will be entitled to acquire, upon the terms applicable to such Purchase Rights, the aggregate Purchase Rights which the holder could have acquired if the holder had held the number of shares of common stock acquirable upon complete exercise of the applicable warrant immediately before the record date, or, if no such record is taken, the date as of which the record holders of shares of common stock are to be determined, for the grant, issue or sale of such Purchase Rights.

Fundamental Transaction

If a Fundamental Transaction (as defined in the Series C warrants and the Series D warrants and described below) occurs, then the successor entity will succeed to, and be substituted for us, and may exercise every right and power that we may exercise and will assume all of our obligations under the Series C warrants and the Series D warrants with the same effect as if such successor entity had been named in the warrant itself. Additionally, upon consummation of a Fundamental Transaction pursuant to which holders of shares of our common stock are entitled to receive securities or other assets with respect to or in exchange for shares of our common stock, we will make appropriate provision to ensure that the holder will thereafter have the right to receive upon an exercise of the Series C warrants and the Series D warrants at any time after the consummation of the Fundamental Transaction but prior to the applicable expiration date of the Series C warrants and the Series D warrants, in lieu of shares of our common stock (or other securities, cash, assets or other property) purchasable upon the exercise of the applicable warrant prior to such Fundamental Transaction, at the option of each holder (without regard to any limitation in Section 2(e) on the exercise of the Series C warrants and the Series D warrants, as applicable), the number of shares of common stock of the successor or acquiring corporation or of us, if we are the surviving corporation, and any additional consideration which the holder would have been entitled to receive upon the happening of such Fundamental Transaction had the Series C warrant or the Series D warrant been exercised immediately prior to such Fundamental Transaction.

If holders of our common stock are given a choice as to the securities, cash or property to be received in a Fundamental Transaction, then the holder shall be given the same choice as to the consideration it receives upon any exercise of the Series C warrants and the Series D warrants, as applicable, following such Fundamental Transaction. These provisions apply similarly and equally to successive Fundamental Transactions and other corporate events described in the Series C warrants and the Series D warrants and will be applied without regard to any limitations on the exercise of the warrant.

In the event of certain Fundamental Transactions, at the request of the holder, we or the successor entity shall purchase the unexercised portion of the Series C warrants and the Series D warrants from the holder by paying to the holder, on or prior to the second trading day after such request (or, if later, on the effective date of the Fundamental Transaction), cash in an amount equal to the Black-Scholes Value (as defined below) of the remaining unexercised portion of the Series C warrants and the Series D warrants on the date of such Fundamental Transaction.

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Authorized Shares

During the period the Series C warrants and the Series D warrants are outstanding, we will reserve from our authorized and unissued shares of common stock a sufficient number of shares to provide for the issuance of 100% of the shares of common stock underlying the warrants upon the exercise of the warrants.

Transferability

Subject to applicable laws, the Series C warrants and the Series D warrants may be offered for sale, sold, transferred or assigned. There is currently no trading market for the Series C warrants and the Series D warrants and a trading market is not expected to develop.

Rights as a Shareholder

Except as otherwise provided in the Series C warrants and the Series D warrants or by virtue of a holder's ownership of shares of our common stock, the holders of the warrants do not have the rights or privileges of holders of our common stock, including any voting rights, unless and until they exercise their warrants.

Amendments

Each Series C warrant and Series D warrant may be amended with the written consent of the holder of such warrant and us.

Listing

There is no established public trading market for the Series C warrants or the Series D warrants, and we do not expect a market to develop. In addition, we do not intend to apply for listing of the Series C warrants or the Series D warrants on any national securities exchange.

Forum Selection.

The Series C warrants and Series D warrants each sets the state and federal courts sitting in the City of New York, Borough of Manhattan as the exclusive forum for any legal proceedings concerning the interpretation, enforcement and defense of the transactions contemplated by the Series C warrants and Series D warrants, respectively, referred to as the New York Forum Provision; provided, however, that this New York Forum Provision does not apply to any actions arising under the Securities Act or the Exchange Act. The New York Forum Provision may impose additional litigation costs on stockholders in pursuing such claims, particularly if the stockholders do not reside in or near the State of New York. Additionally, the New York Forum Provision may limit our stockholders' ability to bring a claim in a judicial forum that they find favorable for disputes arising under the Series C warrants or Series D warrants, as applicable, which may discourage the filing of such lawsuits.

Definitions

"Black Scholes Value" means the value of the Series C warrants or the Series D warrants, as applicable, based on the Black-Scholes Option Pricing Model obtained from the "OV" function on Bloomberg, L.P. ("Bloomberg") determined as of the day of consummation of the applicable Fundamental Transaction for pricing purposes and reflecting (A) a risk-free interest rate corresponding to the U.S. Treasury rate for a period equal to the time between the date of the public announcement of the applicable Fundamental Transaction and the Termination Date, (B) an expected volatility equal to the greater of 100% and the 100 day volatility obtained from the HVT function on Bloomberg (determined utilizing a 365 day annualization factor) as of the trading day immediately following the public announcement of the applicable Fundamental Transaction, (C) the underlying price per share used in such calculation shall be the greater of (i) the sum of the price per share being offered in cash, if

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any, plus the value of any non-cash consideration, if any, being offered in such Fundamental Transaction and (ii) the greater of (x) the last VWAP immediately prior to the public announcement of such Fundamental Transaction and (y) the last VWAP immediately prior to the consummation of such Fundamental Transaction and (D) a remaining option time equal to the time between the date of the public announcement of the applicable Fundamental Transaction and the Termination Date, and (E) a zero cost of borrow.

“Fundamental Transaction” means (i) we, directly or indirectly, in one or more related transactions effect any merger or consolidation with or into another Person, (ii) we (and all of our subsidiaries, taken as a whole), directly or indirectly, effects any sale, lease, license, assignment, transfer, conveyance or other disposition of all or substantially all of our assets in one or a series of related transactions, (iii) any, direct or indirect, purchase offer, tender offer or exchange offer (whether by us or another Person) is completed pursuant to which holders of common stock are permitted to sell, tender or exchange their shares for other securities, cash or property and has been accepted by the holders of 50% or more of the outstanding common stock, (iv) we, directly or indirectly, in one or more related transactions effect any reclassification, reorganization or recapitalization of our common stock or any compulsory share exchange pursuant to which our common stock is effectively converted into or exchanged for other securities, cash or property, or (v) we, directly or indirectly, in one or more related transactions consummate a stock or share purchase agreement or other business combination (including, without limitation, a reorganization, recapitalization, spin-off, merger or scheme of arrangement) with another Person or group of Persons whereby such other Person or group acquires more than 50% of the outstanding shares of our common stock (not including any shares of common stock held by the other Person or other Persons making or party to, or associated or affiliated with the other Persons making or party to, such stock or share purchase agreement or other business combination).

CAPITALIZATION

The following table sets forth our consolidated cash and cash equivalents, our notes payable and our capitalization as of September 30, 2019:

- on an actual basis; and
- on an adjusted basis after giving effect to our sale of an aggregate of Class A Units for an aggregate purchase price of \$ million.

You should read this table along with our historical consolidated financial statements and related notes and the other financial information included and incorporated by reference in this prospectus supplement and the accompanying prospectus.

	At September 30, 2019, actual (unaudited)	At September 30, 2019, after giving effect to the offering(2)
	(In thousands)	
Cash, cash equivalents and restricted cash (1):	\$ 22,804	
Notes Payable	(15,343)	
Stockholders' equity:		
Common stock \$0.001 par value, 750,000,000 shares authorized at September 30, 2019; 19,665,574 shares issued and outstanding at September 30, 2019, actual; shares issued and outstanding at September 30, 2019, as adjusted	255	
Preferred stock \$0.01 par value, 25,000,000 shares authorized at September 30, 2019; no shares issued and outstanding at September 30, 2019, actual and as adjusted		
Additional paid-in capital	716,420	
Accumulated deficit	(649,868)	
Accumulated other comprehensive loss	(3,041)	
Total stockholders' equity	63,766	
Total capitalization	71,227	

(1) Includes restricted cash of \$698 thousand.

(2) Assumes issuance of only Class A Units.

The number of shares outstanding immediately after this offering is based on 19,665,574 shares of our common stock outstanding as of September 30, 2019, and excludes, as of such date:

- 10,068,944 shares of common stock we have issued between October 1, 2019 and March 4, 2020;
- 1,964,824 shares of common stock issuable upon the exercise of outstanding options granted under our stock option plans at a weighted average exercise price of \$31.13 per share;
- 420,452 shares of common stock issuable upon the exercise of outstanding warrants at a weighted average exercise price of \$10.12 per share;
- 470,008 shares of common stock issuable upon vesting of outstanding restricted stock units; and
- 1,180,656 shares of common stock available for future issuance under our stock option plans.

The information above, including share and per share amounts, gives effect to the 1-for-13 reverse stock split effected in December 2019.

DILUTION

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

As of September 30, 2019, our net tangible book value was approximately \$31.1 million, or \$1.58 per share of common stock. After giving effect to the sale of Units offered by this prospectus supplement at a public offering price of \$ per Series A Unit and of \$ per Series B Unit, and after deducting underwriter discounts and commissions and estimated offering expenses payable by us, the as-adjusted net tangible book value as of September 30, 2019 would have been approximately \$ million, or \$ per share. This represents an immediate dilution in the as adjusted net tangible book value to existing stockholders of approximately \$ per share and an immediate dilution to new investors purchasing securities in this offering of approximately \$ per share, as illustrated by the following table:

Public offering price per share	\$
Net tangible book value per share at September 30, 2019	\$1.58
Decrease in net tangible book value per share attributable to existing holders of our common stock	\$ ()
As adjusted net tangible book value per share as of September 30, 2019 after giving effect to this offering	\$
Decrease per share to investors purchasing our common stock in this offering	\$

The information above is based on 19,665,574 shares of our common stock outstanding as of September 30, 2019, and excludes, as of such date:

- 10,068,944 shares of common stock we have issued between October 1, 2019 and March 4, 2020;
- 1,964,824 shares of common stock issuable upon the exercise of outstanding options granted under our stock option plans at a weighted average exercise price of \$31.13 per share;
- 420,452 shares of common stock issuable upon the exercise of outstanding warrants at a weighted average exercise price of \$10.12 per share;
- 470,008 shares of common stock issuable upon vesting of outstanding restricted stock units; and
- 1,180,656 shares of common stock available for future issuance under our stock option plans.

The information above, including share and per share amounts, gives effect to the 1-for-13 reverse stock split effected in December 2019.

PRICE RANGE OF OUR COMMON STOCK

Our common stock began trading on the NYSE American on April 2, 2014 under the symbol “TRXC.”

The closing price of our common stock as reported on the NYSE American on March 4, 2020 was \$1.14 per share. As of March 4, 2020, there were approximately 192 record holders of our common stock (counting all shares held in single nominee registration as one stockholder). This does not include the number of persons whose stock is in nominee or “street name” accounts through brokers.

UNDERWRITING

We have entered into an underwriting agreement dated _____, 2020 with Ladenburg Thalmann & Co. Inc. (“Ladenburg,” “underwriter,” or “representative”), as the representative of the underwriters (the “representative”) named below and the sole book-running manager of this offering. Subject to the terms and conditions of the underwriting agreement, Ladenburg has agreed to purchase the number of our securities set forth opposite its name below.

<u>Underwriter</u>	<u>Class A Units</u>	<u>Class B Units</u>
Ladenburg Thalmann & Co. Inc.		
Total		

We have been advised by the underwriter that it proposes to offer the units directly to the public at the public offering price set forth on the cover page of this prospectus supplement. The underwriter may sell Class A Units or Class B Units separately to purchasers or may sell a combination of Class A Units and Class B Units to purchasers in any proportion. Any securities sold by the underwriter to securities dealers will be sold at the public offering price less a selling concession not in excess of \$ _____ per share, \$ _____ per Series C Warrant, and \$ _____ per Series D Warrant.

The underwriting agreement provides that subject to the satisfaction or waiver by the representative of the conditions contained in the underwriting agreement, Ladenburg is obligated to purchase and pay for all of the securities offered by this prospectus supplement.

No action has been taken by us or the underwriter that would permit a public offering of the units, or the shares of common stock, warrants, or shares of Series A Preferred Stock, shares of common stock underlying the Series A Preferred Stock and warrants to purchase common stock included in the units, in any jurisdiction outside the United States where action for that purpose is required. None of our securities included in this offering may be offered or sold, directly or indirectly, nor may this prospectus supplement or any other offering material or advertisements in connection with the offer and sales of any of the securities offered hereby be distributed or published in any jurisdiction except under circumstances that will result in compliance with the applicable rules and regulations of that jurisdiction. Persons who receive this prospectus supplement are advised to inform themselves about and to observe any restrictions relating to this offering of securities and the distribution of this prospectus supplement. This prospectus supplement is neither an offer to sell nor a solicitation of any offer to buy the securities in any jurisdiction where that would not be permitted or legal. The underwriter has advised us that it does not intend to confirm sales to any account over which it exercises discretionary authority.

Underwriting Discount and Expenses

The following table summarizes the underwriting discount and commission to be paid to the underwriter assuming no exercise of the over-allotment option and assuming the full exercise of the over-allotment option.

	<u>Per Class A Unit(1)</u>	<u>Per Class B Unit(1)</u>	<u>Total With No Exercise of the Over- Allotment Option</u>	<u>Total With Full Exercise of the Over- Allotment Option</u>
Public offering price	\$ _____	\$ _____	\$ _____	\$ _____
Underwriting discount to be paid to the underwriter by us(2)(3)	\$ _____	\$ _____	\$ _____	\$ _____
Proceeds to us (before expenses)	\$ _____	\$ _____	\$ _____	\$ _____

- (1) The public offering price and underwriting discount corresponds to (x) in respect of the Class A Units (i) a public offering price per share of common stock of \$ _____, (ii) a public offering price per Series C Warrant of \$ _____ and (iii) a public offering price per Series D warrant of \$ _____ and (y) in respect of the Class B

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- Units (i) a public offering price per share of Series A Preferred Stock of \$ _____, (ii) a public offering price per Series C Warrant of \$ _____, and (iii) a public offering price per Series D warrant of \$ _____.
- (2) We have granted a 45-day option to the underwriter to purchase additional shares of common stock and/or warrants to purchase shares of common stock (up to 15% of the number of shares of common stock (including the number of shares of common stock issuable upon conversion of shares of Series A Preferred Stock) and the number of shares of common stock underlying the warrants sold in the primary offering) at the public offering price per share of common stock and the public offering price per Series C Warrant and Series D Warrant set forth above less the underwriting discounts and commissions, solely to cover over-allotments, if any.
- (3) We have agreed to pay an underwriting discount equal to 8.0% of the aggregate gross proceeds raised in this offering.

We estimate the total expenses payable by us for this offering to be approximately \$ _____ million, which amount includes (i) the underwriting discount of \$ _____ (\$ _____ if the over-allotment option is exercised in full) and (ii) reimbursement of the accountable expenses of the representative equal to \$100,000 including the legal fees of the representative being paid by us and (iii) other estimated company expenses of approximately \$ _____, which includes legal, accounting, printing costs and various fees associated with the registration and listing of our shares.

The securities we are offering are being offered by the underwriter subject to certain conditions specified in the underwriting agreement.

Over-allotment Option

We have granted the underwriter an option exercisable not later than 45 days after the date of this prospectus supplement to purchase up to a number of additional shares of common stock and/or warrants to purchase shares of common stock not to exceed 15% of the number of shares of common stock sold in the primary offering (including the number of shares of common stock issuable upon conversion of shares of Series A Preferred Stock, but excluding shares of common stock underlying the warrants issued in this offering and any shares of common stock issued upon any exercise of the underwriter's over-allotment option) and/or 15% of the warrants sold in the primary offering at the public offering price per share of common stock and the public offering price per warrant set forth on the cover page hereto less the underwriting discounts and commissions. The underwriter may exercise the option solely to cover over-allotments, if any, made in connection with this offering. If any additional shares of common stock and/or warrants are purchased pursuant to the over-allotment option, the underwriter will offer these shares of common stock and/or warrants on the same terms as those on which the other securities are being offered.

Determination of Offering Price

Our common stock is listed on the NYSE American under the symbol "TRXC." On March 4, 2020, the last reported sale price of our common stock on the NYSE American was \$1.14 per share. We do not intend to apply for listing of the Series A Preferred Stock or the warrants on any securities exchange or other trading system.

The public offering price of the securities offered by this prospectus supplement was determined by negotiation between us and the underwriter. Among the factors considered in determining the public offering price of the common stock were:

- our history and our prospects;
- the industry in which we operate;
- our past and present operating results;
- the previous experience of our executive officers; and
- the general condition of the securities markets at the time of this offering.

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The offering price stated on the cover page of this prospectus supplement should not be considered an indication of the actual value of the shares of common stock sold in this offering. That price is subject to change as a result of market conditions and other factors, and we cannot assure you that the shares of common stock sold in this offering can be resold at or above the public offering price.

Lock-up Agreements

Our officers and directors have agreed with the representative to be subject to a lock-up period of 90 days following the date of this prospectus supplement. This means that, during the applicable lock-up period, such persons may not offer for sale, contract to sell, distribute, grant any option, right or warrant to purchase, pledge, hypothecate, or otherwise dispose of, directly or indirectly, any shares of our common stock or any securities convertible into, or exercisable or exchangeable for, shares of our common stock. Certain limited transfers are permitted during the lock-up period if the transferee agrees to these lock-up restrictions. We have also agreed, in the underwriting agreement, to similar lock-up restrictions on the issuance and sale of our securities until June 30, 2020, although we will be permitted to issue stock options or stock awards to directors, officers and employees under our existing plans. The representative may, without notice, waive the terms of any of these lock-up agreements.

Transfer Agent and Registrar

The transfer agent of our common stock is Continental Stock Transfer & Trust Company. The transfer agent and registrar's address is 1 State St 30th Floor, New York, NY 10004, and the telephone number is (212) 509-4000.

Stabilization, Short Positions and Penalty Bids

The underwriter may engage in syndicate covering transactions, stabilizing transactions, and penalty bids or purchases for the purpose of pegging, fixing, or maintaining the price of our common stock:

- Syndicate covering transactions involve purchases of securities in the open market after the distribution has been completed in order to cover syndicate short positions. Such a naked short position would be closed out by buying securities in the open market. A naked short position is more likely to be created if the underwriter is concerned that there could be downward pressure on the price of the securities in the open market after pricing that could adversely affect investors who purchase in the offering.
- Stabilizing transactions permit bids to purchase the underlying security so long as the stabilizing bids do not exceed a specific maximum and are engaged in for the purpose of preventing or retarding a decline in the market price of the shares of common stock while this offering is in progress.
- Penalty bids permit the underwriter to reclaim a selling concession from a syndicate member when the securities originally sold by the syndicate member are purchased in a stabilizing or syndicate covering transaction to cover syndicate short positions.

These syndicate covering transactions, stabilizing transactions, and penalty bids may have the effect of raising or maintaining the market prices of our securities or preventing or retarding a decline in the market prices of our securities. As a result, the price of our common stock may be higher than the price that might otherwise exist in the open market. Neither we nor the underwriter make any representation or prediction as to the effect that the transactions described above may have on the price of our common stock. These transactions may be effected on the NYSE America, in the over-the-counter market or on any other trading market and, if commenced, may be discontinued at any time.

In connection with this offering, the underwriter also may engage in passive market making transactions in our common stock in accordance with Regulation M during a period before the commencement of offers or sales of shares of our common stock in this offering and extending through the completion of the distribution. In general,

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a passive market maker must display its bid at a price not in excess of the highest independent bid for that security. However, if all independent bids are lowered below the passive market maker's bid, that bid must then be lowered when specific purchase limits are exceeded. Passive market making may stabilize the market price of the securities at a level above that which might otherwise prevail in the open market and, if commenced, may be discontinued at any time.

Neither we, nor the underwriter make any representation or prediction as to the direction or magnitude of any effect that the transactions described above may have on the prices of our securities. In addition, neither we nor the underwriter make any representation that the underwriter will engage in these transactions or that any transactions, once commenced will not be discontinued without notice.

Indemnification

We have agreed to indemnify the underwriter against certain liabilities, including certain liabilities arising under the Securities Act, or to contribute to payments that the underwriter may be required to make for these liabilities.

LEGAL MATTERS

Certain legal matters with respect to the securities offered hereby have been passed upon by Ballard Spahr LLP, Philadelphia, Pennsylvania. Certain legal matters in connection with this offering will be passed upon for the underwriter by Ellenoff Grossman & Schole LLP, New York, New York.

EXPERTS

The consolidated financial statements as of December 31, 2018 and 2017 and for each of the three years in the period ended December 31, 2018 and management's assessment of the effectiveness of internal control over financial reporting as of December 31, 2018 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, incorporated herein by reference, given on the authority of said firm as experts in auditing and accounting.

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, 2018, filed with the SEC on February 27, 2019;

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- our Quarterly Reports on Form 10-Q for the quarters ended [March 31, 2019](#), [June 30, 2019](#) and [September 30, 2019](#), filed with the SEC on May 9, 2019, August 8, 2019 and November 12, 2019, respectively;
- our Current Reports on Form 8-K filed with the SEC on [April 26, 2019](#) (Items 5.02, 5.07 and 9.01), [July 10, 2019](#) (Item 1.01), [August 12, 2019](#) (Items 1.01, 1.02 and 9.01), [September 6, 2019](#) (Items 1.01, 8.01 and 9.01), [October 17, 2019](#) (Items 1.01, 5.02 and 8.01), [November 1, 2019](#) (Item 5.02), [November 8, 2019](#) (Item 1.02), [November 20, 2019](#) (Item 8.01), [December 11, 2019](#) (Items 5.03 and 5.07), [January 3, 2020](#) (Item 5.02), [January 6, 2020](#) (Item 2.02), [January 22, 2020](#) (Item 8.01), [January 31, 2020](#) (Item 8.01), [February 10, 2020](#) (Items 1.01, 8.01 and 9.01), [February 12, 2020](#) (Item 8.01), [February 25, 2020](#) (Items 1.01, 3.03 and 9.01), [February 28, 2020](#) (Item 8.01) and [March 2, 2020](#) (Item 8.01);
- our definitive proxy statements on Schedule 14A, filed with the SEC on [March 15, 2019](#) and [November 18, 2019](#); and
- the description of the Company's common stock contained in the Registration Statement on [Form 8-A](#) filed on April 7, 2014, and any amendments to each such Registration Statement filed subsequently thereto, including all amendments or reports filed for the purpose of updating such description.

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

TransEnterix, Inc.
Attention: Joshua Weingard, Chief Legal Officer and Secretary
635 Davis Drive, Suite 300
Morrisville, NC 27560
Telephone No.: (919) 765-8400

PROSPECTUS



\$150,000,000
Common Stock
Preferred Stock
Warrants
Debt Securities
Units

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

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

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

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

Investing in our securities involves a high degree of risk. See "[RISK FACTORS](#)" on page 4.

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

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

The date of this Prospectus is May 19, 2017.

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SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended (the “Securities Act”), and Section 21E of the Securities Exchange Act of 1934, as amended (the “Exchange Act”). All statements, other than statements of historical fact, included or incorporated in this prospectus regarding our strategy, future operations, collaborations, intellectual property, cash resources, financial position, future revenues, projected costs, prospects, plans, and objectives of management are forward-looking statements. The words “believes,” “anticipates,” “estimates,” “plans,” “expects,” “intends,” “may,” “could,” “should,” “potential,” “likely,” “projects,” “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 under the heading “Risk Factors.” These factors and the other cautionary statements made in this prospectus should be read as being applicable to all related forward-looking statements whenever they appear in this prospectus. In addition, any forward-looking statements represent our estimates only as of the date that this prospectus is filed with the SEC, and should not be relied upon as representing our estimates as of any subsequent date. We do not assume any obligation to update any forward-looking statements. We disclaim any intention or obligation to update or revise any forward-looking statement, whether as a result of new information, future events or otherwise.

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

PROSPECTUS SUMMARY

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

Company Overview

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

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

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

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

We believe that:

- there are a number of hospitals and an increasing number of ambulatory surgery centers in the U.S. and internationally that could benefit from the addition of robotic-assisted minimally invasive surgery and, with the Senhance System, lower operational costs;
- with the Senhance System, surgeons can benefit from the haptic feedback, enhanced 3DHD vision and open architecture consistent with current laparoscopic surgery procedures; and
- patients will continue to seek a minimally invasive option for many common general abdominal and gynecologic surgeries, which are addressed by the Senhance System.

We believe that future outcomes of minimally invasive surgery will be enhanced through our combination of more advanced tools and robotic functionality which are designed to: (i) empower surgeons with improved

precision, dexterity and visualization; (ii) improve patient satisfaction and enable a desirable post-operative recovery; and (iii) provide a cost-effective robotic system, compared to existing alternatives today, for a potentially wide range of clinical applications.

The Senhance System

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

Key features of the Senhance System are:

- **Haptic Feedback:** The Senhance System's force feedback provides the surgeon with the ability to feel the tissue response during a procedure;
- **Enhanced Vision:** The Senhance System features 3DHD vision technology and gives the surgeon the ability to move the camera via eye movement so that the camera is centered in the surgeon's field of vision;
- **Laparoscopic Motion:** The Senhance System utilizes laparoscopic motion that is similar to the motion used during traditional laparoscopic surgeries;
- **View of the Sterile Field:** The Senhance System offers the surgeon an open view of the operating room and sterile field from the console; and
- **Enables use of standard trocars:** The Senhance System allows for standard laparoscopic trocars to be used and does not require that robotic arms be docked directly to the patient.

May 2017 Financing

On April 28, 2017, we entered into an underwriting agreement with Stifel, Nicolaus & Company, Incorporated, relating to an underwritten public offering of an aggregate of 24,900,000 units, each unit consisting of one share of common stock, a Series A warrant to purchase one share of common stock and a Series B warrant to purchase 0.75 shares of common stock. The offering price to the public was \$1.00 per unit. Each Series A warrant has an initial exercise price of \$1.00 per share and may be exercised at any time beginning on the date of issuance, and from time to time thereafter, through and including the first anniversary of the issuance date, unless terminated earlier as provided in the Series A warrant. In the event the FDA provides clearance with respect to the Company's Senhance System 510(k) application, which was filed with the FDA in April 2017, the holders of Series A warrants will have 10 business days after written notice to exercise, in whole or in part, their Series A warrants. Any Series A warrants that remain unexercised after such 10 business day period will expire. Each Series B warrant has an initial exercise price of \$1.00 per share, is exercisable immediately, and has a term of five years. The exercise prices and the number of shares issuable upon exercise of each of the warrants are subject to adjustment upon the occurrence of certain events, including, but not limited to, stock splits or dividends, business combinations, sale of assets, similar recapitalization transactions, or other similar transactions. The exercise prices of each of the warrants are also subject to adjustment in the event that we issue, or are deemed to issue, shares of common stock for less than the then applicable exercise prices of each of the warrants.

As used herein, the terms "Company," "we," "our," or "us" each includes TransEnterix, Inc. and its subsidiaries, TransEnterix International, Inc., TransEnterix Italia, S.r.l., TransEnterix Europe S.Á.R.L, TransEnterix Europe

S.Á.R.L, Bertrange, Swiss Branch, Lugano and TransEnterix Asia PTE. LTD. after giving effect to the Senhance Acquisition.

The Company operates in one business segment.

Company Information

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

ABOUT THIS PROSPECTUS

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

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

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

RISK FACTORS

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

USE OF PROCEEDS

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

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

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

PLAN OF DISTRIBUTION

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

- through one or more underwriters;
- through dealers, who may act as agents or principals (including a block trade in which a broker or dealer so engaged will attempt to sell the shares as agent but may position and resell a portion of the block as principal to facilitate the transaction);
- directly to one or more purchasers;
- through agents;
- through registered direct offerings;
- as part of a collaboration with a third party;
- 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.

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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 reallowed or paid to dealers.

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

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

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

Agents

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

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.

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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 overallocation, stabilizing transactions, short covering transactions and penalty bids in accordance with Regulation M under the Exchange Act.

Overallocation 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.

Costs

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

DESCRIPTION OF CAPITAL STOCK

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

Common Stock

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

Transfer Agent

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

Listing

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

Preferred Stock

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

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

Delaware Statute

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

- prior to such date, our board of directors approves either the business combination or the transaction that resulted in the stockholder’s becoming an interested stockholder;
- upon consummation of the transaction that resulted in the stockholder becoming an interested stockholder, the interested stockholder owns at least 85% of our outstanding voting stock, excluding shares held by directors, officers and certain employee stock plans; or
- on or after the consummation date, the business combination is approved by our board of directors and by the affirmative vote at an annual or special meeting of stockholders holding at least two-thirds of our outstanding voting stock that is not owned by the interested stockholder.

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

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

Certificate of Incorporation and Bylaw Provisions

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

- Preferred Stock. As noted above, our board of directors, without stockholder approval, has the authority under our certificate of incorporation to issue preferred stock with rights superior to the rights of the holders of common stock. As a result, we could issue preferred stock quickly and easily, which could adversely affect the rights of holders of our common stock and could be issued with terms calculated to delay or prevent a change of control or make removal of management more difficult.
- Stockholder Meetings. Under our certificate of incorporation, as amended, and bylaws, special meetings of our stockholders may be called only by the vote of a majority of the entire board of directors or the chairman of the board of directors. Our stockholders may not call a special meeting of the stockholders.
- Requirements for Advance Notification of Stockholder Nominations and Proposals. Our bylaws establish advance notice procedures with respect to stockholder proposals and the nomination of candidates for election as directors, other than nominations made by or at the direction of our board of directors or a committee thereof.

DESCRIPTION OF DEBT SECURITIES

General

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

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

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

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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;
- the rate or rates, which may be fixed or variable, at which the debt securities of the series shall bear interest, if any, or the method of calculating and/or resetting such rate or rates of interest;
- the dates from which such interest shall accrue or the method by which such dates shall be determined and the duration of the extensions and the basis upon which interest shall be calculated;
- the interest payment dates for the series of debt securities or the method by which such dates will be determined, the terms of any deferral of interest and any right of ours to extend the interest payments periods;
- the terms and conditions upon which debt securities of the series may be redeemed, in whole or in part, at our option or otherwise;
- our obligation, if any, to redeem, purchase, or repay debt securities of the series pursuant to any sinking fund or other specified event or at the option of the holders and the terms of any such redemption, purchase, or repayment;
- the terms, if any, upon which the debt securities of the series may be convertible into or exchanged for preferred stock or common stock, including, among other things, the initial conversion or exchange price or rate and the conversion or exchange period;
- if the amount of principal, premium, if any, or interest with respect to the debt securities of the series may be determined with reference to an index or formula, the manner in which such amounts will be determined;
- if any payments on the debt securities of the series are to be made in a currency or currencies (or by reference to an index or formula) other than that in which such securities are denominated or designated to be payable, the currency or currencies (or index or formula) in which such payments are to be made and the terms and conditions of such payments;
- any changes or additions to the provisions of the indenture dealing with defeasance, including any additional covenants that may be subject to our covenant defeasance option;
- the currency or currencies in which payment of the principal and premium, if any, and interest with respect to debt securities of the series will be payable, or in which the debt securities of the series shall be denominated, and the particular provisions applicable thereto in accordance with the indenture;

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- the portion of the principal amount of debt securities of the series which will be payable upon declaration of acceleration or provable in bankruptcy or the method by which such portion or amount shall be determined;
- whether the debt securities of the series will be secured and, if so, on what terms;
- any events of default with respect to the debt securities of the series;
- the identity of any trustees, authenticating or paying agents, transfer agents or registrars;
- the applicability of, and any addition to or change in, the covenants currently set forth in the indenture;
- the subordination, ranking or priority, if any, of the debt securities of the series and terms of the subordination;
- any other terms of the debt securities of the series which are not prohibited by the indenture; and
- whether securities of the series shall be issuable as registered securities or bearer securities (with or without interest coupons), and any restrictions applicable to the offering, sale or delivery of such bearer securities and the terms upon which such bearer securities of a series may be exchanged for registered securities, and vice versa.

Interest Rate

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

Transfer and Exchange

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

(a) “book-entry securities,” which means that there will be one or more global securities registered in the name of The Depository Trust Company, as depository, or a nominee of the depository; or

(b) “certificated securities,” which means that they will be represented by a certificate issued in definitive registered form.

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

Certificated Debt Securities

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

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

Global Debt Securities and Book–Entry System

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

- be registered in the name of a depository, or its nominee, that we would identify in a prospectus supplement;
- be deposited with the depository or nominee or custodian; and
- bear any required legends.

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

- the depository has notified us that it is unwilling or unable to continue as depository or has ceased to be qualified to act as depository;
- an event of default has occurred and is continuing with respect to the debt securities of the applicable series; or
- any other circumstance described in a prospectus supplement has occurred permitting or requiring the issuance of any such security.

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

- entitled to have the debt securities registered in their names;
- entitled to physical delivery of certificated debt securities; or
- considered to be holders of those debt securities under the indenture.

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

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

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

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

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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.

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

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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;
- if applicable, the designation and terms of the debt securities, preferred stock or common stock with which the warrants are issued and the number of warrants issued with each security;
- if applicable, the date from and after which the warrants and the related debt securities, preferred stock or common stock will be separately transferable;
- the principal amount of debt securities or the number of shares of preferred stock or common stock purchasable upon exercise of any warrant and the price at which those shares may be purchased;
- provisions for changes to or adjustments in the exercise price;
- if applicable, the minimum or maximum number of warrants that may be exercised at any one time;
- information with respect to any book-entry procedures;
- any anti-dilution provision of the warrants;
- any redemption or call provisions; and
- any additional terms of the warrants, including terms, procedures and limitations relating to the exchange and exercise of the warrants.

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

DESCRIPTION OF UNITS

We may issue units consisting of one or more of the other securities that may be offered under this prospectus, in any combination. These units may be issuable as, and for a specified period of time may be transferable only as, a single security, rather than as the separate constituent securities comprising such units. The statements made in this section relating to the units are summaries only and are not complete. When we issue units, we will provide the specific terms of the units in a prospectus supplement. To the extent the information contained in the prospectus supplement differs from this summary description, you should rely on the information in the prospectus supplement.

RATIO OF EARNINGS TO FIXED CHARGES

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

LEGAL MATTERS

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

EXPERTS

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

INCORPORATION BY REFERENCE

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

- our Annual Report on Form 10-K for the year ended December 31, 2016, filed with the SEC on [March 6, 2017](#);
- our Quarterly Report on Form 10-Q for the quarter ended March 31, 2017, filed on [May 10, 2017](#);
- our Current Reports on Form 8-K filed with the SEC on [January 5, 2017](#) (Items 1.01, 8.01 and 9.01), [February 23, 2017](#) (Item 8.01), [April 28, 2017](#) (Items 1.01, 1.02, 8.01 and 9.01), [May 3, 2017](#) (Item 8.01) and [May 10, 2017](#) (Items 1.01, 1.02, 2.03, 3.03, 8.01 and 9.01);

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- our definitive proxy statement on Schedule 14A, filed with the SEC on [April 21, 2017](#); and
- the description of the Company's common stock contained in the Registration Statement on Form 8-A filed on [April 7, 2014](#), and any amendments to each such Registration Statement filed subsequently thereto, including all amendments or reports filed for the purpose of updating such description.

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

TransEnterix, Inc.
Attention: Joshua Weingard, Chief Legal Officer and Secretary
635 Davis Drive, Suite 300
Morrisville, NC 27560
Telephone No.: (919) 765-8400

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.



Class A Units, consisting of shares of Common Stock and Warrants to purchase up to shares of Common Stock
Class B Units, consisting of shares of Series A Preferred Stock and Warrants to purchase up to shares of Common Stock
(and shares of common stock issuable upon exercise of such warrants and conversion of the Series A Preferred Stock)

PRELIMINARY PROSPECTUS SUPPLEMENT

March , 2020

Sole Book-Running Manager

Ladenburg Thalmann