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Registration Statement No. 333-218517

The information in this preliminary prospectus supplement and the accompanying base prospectus is not complete and may be changed. A registration statement relating to these securities has been declared effective under the Securities Act of 1933, as amended. This preliminary prospectus supplement and the accompanying base prospectus are not an offer to sell these securities and are not soliciting an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.

SUBJECT TO COMPLETION, DATED MAY 21, 2019

PRELIMINARY PROSPECTUS SUPPLEMENT
(To Prospectus dated June 16, 2017)



EKSO BIONICS HOLDINGS, INC.

Shares of Common Stock

Warrants to Purchase Shares of Common Stock

We are offering _____ shares of our common stock, par value \$0.001 per share, warrants to purchase up to _____ shares of our common stock, or the warrants, and the shares of common stock that are issuable from time to time upon exercise of the warrants, pursuant to this prospectus supplement and the accompanying base prospectus. The shares of common stock and the warrants are immediately separable and will be issued separately but will be sold in combination, with one warrant to purchase one share of our common stock accompanying each share of common stock sold, except as may be otherwise elected by the purchasers thereof.

Each warrant will have an exercise price of \$ _____ per share of our common stock, will be exercisable upon issuance and will expire five years from the date of issuance. Notwithstanding the foregoing, the holder will be prohibited from exercising each warrant if, as a result of such exercise, the holder, together with its affiliates, would beneficially own more than 4.99% of the total number of shares of our common stock then issued and outstanding, provided that this limitation may be increased to 9.99% upon written notice to us. The shares of our common stock and the warrants are immediately separable and will be issued separately, but must be purchased together in this offering. Investors in this offering may elect not to accept the warrants (any such investor, an “opt-out investor”). Any opt-out investor will nevertheless pay the public offering price per share and accompanying warrant set forth below. We refer to the shares of our common stock issued in this offering and the warrants to purchase shares of our common stock issued in this offering, collectively, as our securities.

Our common stock is listed on The Nasdaq Capital Market, or Nasdaq, under the symbol “EKSO.” The last reported sale price of our common stock on May 20, 2019 was \$1.91 per share. There is no established trading market for the warrants and we do not expect a market to develop. In addition, we do not intend to list the warrants on Nasdaq, any other national securities exchange or any other nationally recognized trading system.

Investing in our securities involves a high degree of risk. Before making an investment decision, please read the information under the heading “Risk Factors” beginning on page S-5 of this prospectus supplement and in the documents incorporated by reference into this prospectus supplement.

	Per Share and Accompanying Warrant	Total
Public Offering Price	\$	\$
Underwriting Discount and Commissions ⁽¹⁾	\$	\$
Proceeds to Ekso Bionics Holdings, Inc. (before expenses)	\$	\$

(1) See “Underwriting” beginning on page S-14 of this prospectus supplement for additional information regarding the compensation payable to the underwriters.

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 prospectus to which it relates. Any representation to the contrary is a criminal offense.

The underwriters expect to deliver the shares of common stock and the warrants on or about _____, 2019. The warrants will be delivered through the book entry facilities of VStock Transfer, LLC, the warrant agent.

Lead Book-Running Manager

Cantor

Joint-Book-Running Manager

SunTrust Robinson Humphrey

The date of this prospectus supplement is _____, 2019.

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Prospectus

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ABOUT THIS PROSPECTUS SUPPLEMENT

We provide information to you about this offering of shares of our common stock and the warrants in two separate documents that are bound together: (1) this prospectus supplement, which describes the specific details regarding this offering; and (2) the accompanying base prospectus, which provides general information, some of which may not apply to this offering. Generally, when we refer to this “prospectus,” we are referring to both documents combined. If information in this prospectus supplement is inconsistent with the accompanying base prospectus, you should rely on information in this prospectus supplement. However, if any statement in one of these documents is inconsistent with a statement in another document having a later date — for example, a document incorporated by reference in this prospectus supplement — the statement in the document having the later date modifies or supersedes the earlier statement as our business, financial condition, results of operations and prospects may have changed since the earlier dates.

We further note that the representations, warranties and covenants made by us in any agreement that is filed as an exhibit to any document that is incorporated by reference herein were made solely for the benefit of the parties to such agreement, including, in some cases, for the purpose of allocating risk among the parties to such agreement, and should not be deemed to be a representation, warranty or covenant to you. Moreover, such representations, warranties or covenants were accurate only as of the date when made. Accordingly such representations, warranties and covenants should not be relied on as accurately representing the current state of our affairs.

You should rely only on the information contained in, or incorporated by reference into, this prospectus and in any free writing prospectus that we may authorize for use in connection with this offering. We have not, and the underwriters have not, authorized any other person to provide you with any information or to make any representation in respect of this offering, other than those contained or incorporated by reference in this prospectus supplement or in any free writing prospectus we have prepared. We take no responsibility for, and provide no assurance as to the reliability of, any other information that others may give you. You should assume that the information appearing in this prospectus supplement, the accompanying base prospectus, the documents incorporated by reference into this prospectus, and any free writing prospectus that we may authorize for use in connection with this offering, is accurate only as of the date of those respective documents. Our business, financial condition, results of operations and prospects may have changed since those dates. **You should read this prospectus supplement, the accompanying base prospectus, the documents incorporated by reference into this prospectus, and any free writing prospectus that we may authorize for use in connection with this offering, in their entirety before making an investment decision. You should also read and consider the information in the documents to which we have referred you in the sections of this prospectus supplement entitled “Where You Can Find More Information” and “Incorporation of Certain Documents by Reference.”**

We are offering to sell, and seeking offers to buy, shares of our common stock and the warrants only in jurisdictions where offers and sales are permitted. Neither we nor the underwriters are making an offer to sell or soliciting an offer to buy our securities in any jurisdiction where an offer or solicitation is not authorized or in which the person making that offer or solicitation is not qualified to do so or to anyone to whom it is unlawful to make an offer or solicitation. The distribution of this prospectus supplement and the accompanying base prospectus and the offering of our common stock and the warrants in certain jurisdictions may be restricted by law. Persons outside the United States who come into possession of this prospectus supplement and the accompanying base prospectus must inform themselves about, and observe any restrictions relating to, the offering of our common stock and the warrants and the distribution of this prospectus supplement and the accompanying base prospectus outside the United States. This prospectus supplement and the accompanying base prospectus do not constitute, and may not be used in connection with, an offer to sell, or a solicitation of an offer to buy, any securities offered by this prospectus supplement and accompanying base prospectus by any person in any jurisdiction in which it is unlawful for such person to make such an offer or solicitation.

When we refer to “we,” “our,” “us,” “Ekso Bionics,” and the “Company” in this prospectus, we mean Ekso Bionics Holdings, Inc., unless otherwise specified or the context otherwise requires. When we refer to “you,” we mean the potential holders of our common stock and warrants.

This prospectus and the information incorporated by reference herein contain references to our trademarks and to trademarks belonging to other entities, which are protected under applicable intellectual property laws. Solely for convenience, our trademarks and tradenames referred to in this prospectus supplement appear without the ® and ™ symbol, but those references are not intended to indicate, in any way, that we will not assert, to the fullest extent under applicable law, our rights, or the right of the applicable licensor to these trademarks and tradenames. All trademarks, service marks and trade names included or incorporated by reference into this prospectus are the property of their respective owners.

FORWARD-LOOKING STATEMENTS

This prospectus supplement, the accompanying base prospectus, the documents incorporated by reference herein and therein, and any free writing prospectus that we have authorized for use in connection with this offering contain 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 facts, included or incorporated in this prospectus regarding our strategy, future operations, financial position, future revenues, projected costs, prospects, plans and objectives of management are forward-looking statements. In some cases, you can identify forward-looking statements by terminology such as “aim,” “anticipate,” “assume,” “believe,” “contemplate,” “continue,” “could,” “due,” “estimate,” “expect,” “goal,” “intend,” “may,” “objective,” “plan,” “predict,” “potential,” “positioned,” “seek,” “should,” “target,” “will,” “would” and other similar expressions that are predictions or indicate future events and future trends, or the negative of these terms or other comparable terminology, although not all forward-looking statements contain these identifying words.

Forward-looking statements included or incorporated by reference in this prospectus include, for example, statements about:

- our ability to obtain adequate financing to fund operations and to develop or enhance our technology;
- our ability to obtain or maintain regulatory approval to market our devices;
- the anticipated timing, cost and progress of the development and commercialization of new products or services, and improvements to our existing products, and related impacts on our profitability and cash position;
- the accelerating commercial opportunity for exoskeleton technology adoption;
- our ability to effectively market and sell our products and expand our business, both in unit sales and product diversification;
- our ability to achieve broad customer adoption of our products and services;
- our ability to establish, manage, achieve anticipated synergies and benefits of, and maintain our current and future collaborations, joint ventures or partnerships;
- our ability to complete clinical trials on a timely basis and that completed clinical trials will be sufficient to support commercialization of our products;
- existing or increased competition;
- rapid changes in technological solutions available to our markets;
- volatility with our business, including long and variable sales cycles, which could have a negative impact on our results of operations for any given quarter or fiscal year;
- our ability to obtain or maintain patent protection for our intellectual property;
- the scope, validity and enforceability of our and third party intellectual property rights;
- significant government regulation of medical devices and the healthcare industry;
- our customers’ ability to get third party reimbursement for our products and services associated with them;
- our failure to implement our business plan or strategies;
- our ability to retain or attract key employees;
- stock volatility or illiquidity;
- our ability to maintain adequate internal controls over financial reporting;
- our dividend policy;

- the use of proceeds from, the timing of, and our ability to successfully complete this offering; and
- overall economic and market conditions.

These statements are based on current expectations, assumptions, assessments, estimates, forecasts and projections about our business and the industry in which we operate made by our management in light of its experience and its perception of historical trends, current conditions, expected future developments and other factors our management believes to be appropriate. These forward-looking statements are subject to a number of known and unknown risks, uncertainties and other factors that are in some cases beyond our control. As a result, any or all of our forward-looking statements in this prospectus may turn out to be inaccurate. Factors that may cause actual results to differ materially from current expectations include, among other things, those listed under “Risk Factors” and elsewhere in this prospectus. Potential investors are urged to consider these factors carefully in evaluating the forward-looking statements. These forward-looking statements speak only as of the date hereof and as of the dates indicated in these statements. Except as required by law, we assume no obligation to update or revise these forward-looking statements for any reason, even if new information becomes available in the future. Given these risks and uncertainties, you are cautioned not to rely on such forward-looking statements as predictions of future events. You should, however, review the factors and risks we describe in the reports we will file from time to time with the Securities and Exchange Commission, or the SEC, after the date of this prospectus. See “Where You Can Find More Information” and “Incorporation of Certain Documents by Reference.”

PROSPECTUS SUPPLEMENT SUMMARY

The following summary provides a general overview of selected information contained elsewhere in this prospectus supplement, the accompanying base prospectus, any free writing prospectus that we have been authorized to use and the documents incorporated by reference herein and in the accompanying base prospectus. This summary does not contain all of the information you should consider before buying our common stock and the warrants. Therefore, you should read the entire prospectus supplement, accompanying base prospectus and any free writing prospectus that we have authorized for use in connection with this offering carefully, including the information incorporated by reference, before deciding to invest in our common stock and the warrants. Investors should carefully consider the information set forth under "Risk Factors" beginning on page [S-5](#) and other risk factors incorporated by reference to our [Annual Report on Form 10-K for the year ended December 31, 2018](#) and [Quarterly Report on Form 10-Q for the quarter ended March 31, 2019](#).

Overview

Ekso Bionics designs, develops and sells exoskeletons that augment human strength, endurance, and mobility. Our exoskeleton technology serves multiple markets and can be used both by able-bodied users as well as by persons with physical disabilities. We have sold or leased devices that (a) enable individuals with neurological conditions affecting gait (stroke and spinal cord injury) to rehabilitate and to walk again and (b) allow industrial workers to perform heavy duty work for extended periods.

Today, our medical exoskeleton, Ekso GT, is used as a rehabilitation tool to allow physicians and therapists to rehabilitate patients who have suffered a stroke or spinal cord injury. With its unique features designed specifically for hospitals and its proprietary SmartAssist software, Ekso GT allows for the early mobilization of patients, with high step count and high dosage treatments. The intent is to allow the patient's central nervous system to take advantage of a person's neuroplasticity to maximize a patient's recovery.

For able-bodied industrial workers, we introduced in 2017 a second commercial product for industrial applications, the EksoVest, an upper body exoskeleton that elevates and supports a worker's arms to assist them with tasks ranging from chest height to overhead. It is lightweight and low profile, making it comfortable to wear in all conditions while enabling freedom of motion. The goal is for workplaces with the EksoVest to experience fewer on-site injuries while tasks are completed faster and with higher quality results, for workers to stay healthier and experience increased stamina, and for companies to gain greater productivity in factories and on construction sites. In 2019, we are focusing on increasing sales of the EksoVest and EksoZeroG by pursuing alternative channels such as rental agreements with construction equipment and heavy tool providers and working with automotive and related manufacturers to roll out our product(s) globally within their assembly operations. In addition, we believe there is additional mid-to-long-term potential in the industrial markets, and accordingly, we will continue our development efforts to expand our EksoWorks product offerings.

We believe the commercial opportunity for exoskeleton technology adoption is accelerating as a result of recent advancements in material technologies, electronic and electrical engineering, control technologies, and sensor and software development. Taken individually, many of these advancements have become ubiquitous in peoples' everyday lives. We believe that we have learned how to integrate these existing technologies and wrap the result around a human being efficiently, elegantly and safely, supported by an industry leading intellectual property portfolio. We further believe that we can do so across a broad spectrum of applications, from persons with lower limb paralysis to able-bodied users.

Additional details of these programs and related strategic agreements are contained in our Annual Report on Form 10-K for the year ended December 31, 2018 and our Quarterly Report on Form 10-Q for the quarter ended March 31, 2019.

Company Information

Our corporate headquarters are located at 1414 Harbour Way South, Suite 1201, Richmond, California. Our telephone number is (510) 984-1761, and our website address is www.eksobionics.com. Our official Twitter account is @EksoBionics. The information on or accessible through our website or our Twitter account does not constitute part of this prospectus supplement or the accompanying prospectus and should not be relied upon in connection with making any investment in our securities.

Our common stock is listed on The Nasdaq Capital Market (“Nasdaq”) under the symbol “EKSO.”

THE OFFERING	
Common stock offered by us	shares.
Warrants offered by us	Warrants to purchase up to shares of our common stock, which may be exercised beginning on their date of issuance. The warrants are exercisable until the fifth year anniversary of the original issuance date. Notwithstanding the foregoing, the holder will be prohibited from exercising each warrant if, as a result of such exercise, the holder, together with its affiliates, would beneficially own more than 4.99% of the total number of shares of our common stock then issued and outstanding, provided that this limitation may be increased to 9.99% upon written notice to us. The shares of common stock and the warrants will be sold in combination, with one warrant to purchase one share of our common stock accompanying each share of common stock sold, except as may be otherwise elected by the purchasers thereof. The warrants have an exercise price of \$ per share of common stock, subject to adjustment. Subject to applicable laws, the warrants are separately tradeable immediately after issuance at the option of the holder thereof and may be transferred at the option of such holder. However, the warrants can only be purchased together with our common stock in this offering. For more information, see the section entitled “Description of the Securities We are Offering” on page S-13 of this prospectus supplement.
Public offering price	\$ per share of our common stock and accompanying warrant.
Common stock to be outstanding after the offering⁽¹⁾	shares (assuming none of the warrants issued in this offering are exercised and shares if the warrants are exercised in full).
Use of proceeds	We currently intend to use the net proceeds, if any, from the sale of the shares of common stock and the warrants in this offering (including the net proceeds from the exercise of the warrants, if any) for general corporate purposes, which may include acquisitions, research and development activities, capital expenditures, selling, general and administrative costs, facilities expansion, and to meet working capital needs. See “Use of Proceeds” on page S-9 .
Risk Factors	Investing in our common stock involves a high degree of risk. See “Risk Factors” beginning on page S-5 of this prospectus supplement and other information included or incorporated by reference in this prospectus supplement and the accompanying base prospectus for a discussion of factors that you should consider carefully before deciding to invest in our common stock.
Nasdaq Capital Market symbol	EKSO.
Market for the warrants	There is no established public trading market for the warrants, and a market may never develop. We do not intend to list the warrants on Nasdaq, any other national securities or other nationally recognized trading system. The warrants will be issued in book-entry form with VStock Transfer, LLC as the warrant agent.

(1) The number of shares of our common stock to be outstanding after this offering is based on 67,528,609 shares of our common stock outstanding as of March 31, 2019, and excludes the following, in each case as of such date:

- 6,104,713 shares of common stock issuable upon the exercise of stock options outstanding at a weighted average exercise price of \$3.12 per share, 265,299 shares of common stock issuable upon the vesting and settlement of restricted stock units outstanding, and 1,579,848 shares of our common stock available for issuance under our Amended and Restated 2014 Equity Incentive Plan (“2014 Incentive Plan”);
- 500,000 shares of our common stock available for issuance under our 2017 Employee Stock Purchase Plan (“ESPP”); and
- 1,891,810 shares of common stock issuable upon the exercise of warrants outstanding at a weighed exercise price of \$2.94 per share.

Unless otherwise indicated, all information in this prospectus supplement assumes no exercise of the warrants offered in this offering or outstanding warrants and options and no settlement of outstanding restricted stock units described above.

RISK FACTORS

Investing in our securities involves a high degree of risk. You should carefully consider the specific risks described below and discussed under the section captioned “Risk Factors” contained in our Annual Report on Form 10-K for the year ended December 31, 2018 and our Quarterly Report on Form 10-Q for the quarter ended March 31, 2019, each as updated by our subsequent filings under the Exchange Act, each of which is incorporated by reference in this prospectus in their entirety, together with other information in this prospectus, and the information and documents incorporated by reference in this prospectus, and any free writing prospectus that we have authorized for use in connection with this offering before you make a decision to invest in our securities. See the sections of this prospectus entitled “Where You Can Find More Information” and “Incorporation of Certain Documents By Reference.” Any of the risks we describe below or in the information incorporated herein by reference in this prospectus could materially and adversely affect our business, financial condition or operating results. The market price of our common stock could decline if one or more of these risks and uncertainties develop into actual events. You could lose all or part of your investment. The risks described below are not the only ones that we face. Additional risks not presently known to us or that we currently deem immaterial may also affect our business operations.

Risks Relating to this Offering

Management will have broad discretion as to the use of proceeds from this offering and may invest or spend the proceeds in ways with which you do not agree and in ways that may not increase the value of your investment.

Our management will have broad discretion over the use of proceeds from this offering, including for any of the purposes described in the section of this prospectus entitled “Use of Proceeds,” and could spend the proceeds in ways that do not improve our results of operations or enhance the value of our common stock. Accordingly, you will be relying on the judgment of our management with regard to the use of net proceeds, and you will not have the opportunity, as part of your investment decision, to assess whether the proceeds are being used appropriately. You may not agree with our decisions, and our use of the proceeds may not yield any return on your investment. Our failure to apply the net proceeds from this offering effectively could have a material adverse effect on our business, delay the development of our products, compromise our ability to pursue our business strategy, and cause the price of our common stock to decline, and we might not be able to yield a significant return, if any, on our investment of these net proceeds. In addition, the net proceeds from this offering may not be sufficient for our anticipated uses, and we may need additional resources to progress our product candidates to the stage we expect. You will not have the opportunity to influence our decisions on how to use our net proceeds from this offering.

If you purchase shares of our common stock and warrants in this offering, you will experience immediate and substantial dilution in the net tangible book value of your shares and the shares underlying the warrants.

If you purchase shares of our common stock in this offering, or if you obtain shares upon exercise of the warrants, you will experience immediate and substantial dilution, as the public offering price of our common stock and the warrants, and the exercise price of the warrants, will be substantially greater than the net tangible book value per share of our common stock and accompanying warrant. Based on the public offering price of \$ per share of our common stock and accompanying warrant and attributing no value to the warrants for purposes of such calculations, if you purchase our common stock and accompanying warrant in this offering, you will suffer immediate and substantial dilution of approximately \$ per share. In addition, if the holders of the warrants sold in this offering exercise such warrants, or if outstanding options and warrants to purchase our common stock are exercised, or if the outstanding restricted stock units are settled for shares of our common stock, you will experience further dilution. For a further description of the dilution that you will experience immediately after this offering, see the section entitled “Dilution.”

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

In order to raise additional capital, we may in the future offer additional shares of our common stock or other securities convertible into or exchangeable for our common stock. We cannot assure you that we will be able to sell shares or other securities in any other offering at a price per share that is equal to or greater than the price per share and warrant paid by investors in this offering, and investors purchasing

shares or other securities in the future could have rights superior to existing stockholders and warrant holders. The price per share at which we sell additional shares of our common stock or other securities convertible into or exchangeable for common stock in future transactions may be higher or lower than the price per share and warrant in this offering. A significant portion of our total outstanding shares are eligible to be sold into the market, which could cause the market price of our common stock to drop significantly, even if our business is doing well.

Sales of a substantial number of shares of our common stock, including by us or our directors, officers and certain existing investors following expiration or early release of the 90-day lock-up, in the public market could occur at any time. These sales, or the perception in the market that the holders of a large number of shares of our common stock intend to sell shares, could cause the market price of our common stock to decline significantly.

Sales of substantial amounts of our common stock in the public market, or the availability of such shares for sale, by us or others, including the issuance of common stock upon exercise of outstanding options or warrants, could adversely affect the price of our common stock. Upon completion of this offering, based on 67,528,609 shares of our common stock outstanding as of March 31, 2019 and the public offering price of \$ per share and accompanying warrant, we will have outstanding a total of approximately shares of common stock (assuming no exercise of the warrants sold in this offering). In connection with this offering, our officers, directors and certain existing investors have entered into lock-up agreements for a period of 90 days following this offering. Other than any shares held by such directors, officers and certain existing investors, all shares of our common stock are currently freely tradable, and the shares to be sold in this offering, plus any shares issued upon exercise of the warrants sold in this offering will be freely tradable, without restriction, in the public market immediately following this offering. In addition, the underwriters may, in their sole discretion, permit our officers, directors and certain existing investors, who are subject to lock-up agreements in connection with this offering to sell shares prior to the expiration of the 90-day lock-up period. Upon expiration or earlier release of the lock-up, our officers, directors and certain existing investors may sell shares into the market, which could adversely affect the market price of shares of our common stock. Exceptions to the lock-up restrictions are described in more detail in this prospectus supplement under the caption "Underwriting."

As of March 31, 2019, we had an aggregate of approximately: (i) 6,104,713 shares of common stock issuable upon the exercise of stock options outstanding at a weighted average exercise price of \$3.12 per share, 265,299 shares of common stock issuable upon the vesting and settlement of restricted stock units outstanding, and 1,579,848 shares of our common stock available for issuance under our 2014 Incentive Plan; (ii) 500,000 shares of our common stock available for issuance under our ESPP; and (iii) 1,891,810 shares of common stock issuable upon the exercise of warrants outstanding at a weighed exercise price of \$2.94 per share.

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 period from our initial listing on Nasdaq on August 9, 2016 through March 31, 2019, the closing price of our common stock fluctuated from a high of \$6.21 per share to a low of \$1.01 per share, and our stock price continues to fluctuate. The market price of our common stock may continue to fluctuate significantly in response to numerous factors, some of which are beyond our control, such as:

- our ability to grow our revenue and customer base;
- the announcement of new products or product enhancements by us or our competitors;
- developments concerning regulatory oversight and 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;
- successes or challenges in our collaborative arrangements or alternative funding sources;

- developments in the rehabilitation and industrial robotics markets;
- the results of product liability or intellectual property lawsuits;
- future issuances of common stock or other securities;
- the addition or departure of key personnel;
- announcements by us or our competitors of acquisitions, investments or strategic alliances; and
- general market conditions and other factors, including factors unrelated to our operating performance.

The warrants are a risky investment. You may not be able to recover your investment in the warrants, and the warrants may expire worthless.

Whether the warrants will have any value will depend on, among other things, the commercial success of our products, the development of our clinical product candidates, our business development efforts and market conditions generally, which conditions will depend on factors related and unrelated to the success of our products, our product candidates and our business development efforts, and cannot be predicted at this time.

If our common stock price does not increase to an amount sufficiently above the exercise price of the warrants during the period the warrants are exercisable, you will be unable to recover any of your investment in the warrants. There can be no assurance that any of the factors that could impact the trading price of our common stock will result in the trading price increasing to an amount that will exceed the exercise price or the price required for you to achieve a positive return on your investment in the warrants.

Holders of the warrants will have no voting rights as common stockholders until they acquire our common stock.

Until you acquire shares of our common stock upon exercise of the warrants, you will have no voting rights with respect to our common stock issuable upon exercise of the warrants. Upon exercise of your warrants, you will be entitled to exercise all the voting rights of a common stockholder only as to matters for which the record date occurs after the exercise date.

Significant holders or beneficial holders of our common stock may not be permitted to exercise warrants that they hold.

The warrant agreement governing the warrants will prohibit a holder from exercising its warrants, if doing so would result in such holder (together with such holder's affiliates and any other persons acting as a group together with such holder or any of such holder's affiliates) beneficially owning more than 4.99% of our common stock outstanding immediately after giving effect to the exercise, provided that, at the election of a holder and notice to us, such beneficial ownership limitation may be increased or decreased to a percentage not to exceed 9.99% of our common stock outstanding immediately after giving effect to the exercise. As a result, if you hold a significant amount of our securities, you may not be able to exercise your warrants for shares of our common stock, in whole or in part, at a time when it would be financially beneficial for you to do so.

There is no public market for the warrants to purchase shares of common stock being offered in this offering.

There is no established public trading market for the warrants, and we do not expect a market to develop. In addition, we do not intend to apply to list the warrants on any national securities exchange or other nationally recognized trading system, including Nasdaq. Without an active market, the liquidity of the warrants will be limited.

The warrants will contain anti-dilution provisions which may affect our ability to secure future equity financing or reduce the proceeds of any equity financings that would otherwise be available to us.

The warrants contain anti-dilution provisions which provide that, with certain exceptions, any new issuances of common stock or securities convertible into common stock at a price, exercise price or conversion price below the exercise price of the warrants in effect at such time will result in the exercise

price of the warrants being reduced to the purchase price, exercise price or conversion price, as applicable, of such newly issued securities. These anti-dilution provisions may affect our ability to secure future equity financing or reduce the proceeds of any equity financings that would otherwise be available to us.

Our outstanding warrants may have an adverse effect on the market price of our common stock and make it more difficult to effect a business combination.

To the extent we issue shares of common stock to effect a future business combination, the potential for the issuance of a substantial number of additional shares upon exercise of the warrants could make us a less attractive acquisition vehicle in the eyes of a target business. Such securities, when exercised, will increase the number of issued and outstanding shares of our common stock and reduce the value of the shares issued to complete the business combination. Accordingly, the warrants may make it more difficult to effectuate a business combination or increase the cost of acquiring a target business. Additionally, the sale, or even the possibility of sale, of the shares of our common stock underlying the warrants could have an adverse effect on the market price for our securities or on our ability to obtain future financing. If and to the extent the warrants are exercised, you may experience dilution to your holdings.

We may not have the sufficient resources to repurchase the warrants.

Under certain circumstances, if a “Fundamental Transaction” (as defined in the warrant agreement) occurs, holders of the warrants may require us or our successor entity in such transaction to repurchase the remaining unexercised portion of such warrants for an amount of cash equal to the value of the warrant as determined in accordance with the Black Scholes option pricing model and the terms of the warrants. Our or such successor entity’s ability to repurchase the warrants upon such an event will depend on our or such successor entity’s available cash resources at such time, which will also be subject to general economic, financial, competitive, legislative and regulatory factors and other factors that are beyond our control. We cannot assure you that we will maintain sufficient cash reserves or that our business will generate cash flow from operations at levels sufficient to permit us to repurchase the warrants.

Our ability to utilize our net operating loss carryforwards and certain other tax attributes may be limited.

Under Sections 382 and 383 of the Internal Revenue Code of 1986, as amended, if a corporation undergoes an “ownership change” (generally defined as a greater than 50 percentage point change (by value) in the ownership of its equity by certain significant stockholders over a rolling three-year period), the corporation’s ability to use its pre-change net operating loss carryforwards and certain other pre-change tax attributes to offset its post-change income or tax liability may be limited. We have experienced such ownership changes in the past, and we may experience ownership changes in the future as a result of this offering and/or subsequent shifts in our stock ownership, some of which may be outside our control. Because our ability to use our net operating loss carryforwards and other tax attributes is limited by ownership changes, we may be unable to utilize a material portion of our net operating losses and other tax attributes.

USE OF PROCEEDS

We estimate that the net proceeds from the sale of _____ shares of our common stock and the warrants in this offering will be approximately \$ _____ million, after deducting the underwriting discounts and commissions and estimated offering expenses payable by us. The above does not give effect to any exercise of the warrants sold in this offering or the receipt of proceeds from such exercises.

We currently intend to use the net proceeds, if any, from this offering for general corporate purposes, which may include acquisitions, research and development activities, capital expenditures, selling, general and administrative costs, facilities expansion, and to meet working capital needs. We expect from time to time to evaluate the acquisition of businesses, products and technologies for which a portion of the net proceeds may be used, although we currently are not planning or negotiating any such transactions.

The amounts and timing of our actual expenditures may vary significantly depending on numerous factors, including the amount and timing of the proceeds from this offering and progress with the achievement of our corporate goals. Expenditures will also depend upon the establishment and maintenance of manufacturing and supply chains, the availability of additional financing and other factors. We therefore cannot estimate with certainty the amount of net proceeds to be used for the purposes described above. We may find it necessary or advisable to use the net proceeds from this offering for other purposes, and we will have broad discretion in the application of the net proceeds. Investors will be relying on the judgment of our management regarding the application of the proceeds of any sale of shares of our common stock.

Pending the use of the net proceeds from this offering as described above, we may invest the net proceeds in a variety of capital preservation investments, including short- and intermediate-term, interest-bearing obligations, investment-grade instruments or U.S. government securities.

CAPITALIZATION

The following table sets forth our cash and cash equivalents and capitalization as of March 31, 2019:

- on an actual basis; and
- on an adjusted basis to give effect to the issuance and sale by us of shares of our common stock and warrants (but excluding shares of our common stock to be issued upon exercise of the warrants and any proceeds to us in respect of such issuances) in this offering at a public offering price of \$ per share and accompanying warrant, and after deducting the underwriting discounts and commissions and estimated offering expenses payable by us.

You should read this information together with our financial statements and related notes incorporated by reference in this prospectus. For more details on how you can obtain our SEC reports and other information, you should read the sections of this prospectus supplement entitled “Where You Can Find More Information” and “Incorporation of Certain Documents by Reference.”

	<u>As of March 31, 2019</u>	
	<u>Actual</u>	<u>As Adjusted</u>
	<u>(in thousands, except par value and per share data)</u>	
Cash and cash equivalents	\$ 9,236	\$
Long-term debt, net	\$ 4,426	
Stockholders' equity:		
Convertible preferred stock, \$0.001 par value; 10,000 shares authorized; none issued and outstanding	—	—
Common stock, \$0.001 par value; 141,429 shares authorized; 67,529 shares issued and outstanding, actual, shares issued and outstanding, as adjusted	68	
Additional paid-in capital	182,107	
Accumulated other comprehensive income (loss)	56	
Accumulated deficit	(177,697)	
Total stockholders' equity	<u>4,534</u>	
Total capitalization	<u>\$ 8,960</u>	<u>\$</u>

The number of shares of common stock to be outstanding after this offering excludes shares of our common stock to be issued upon exercise of the warrants offered hereby, is based on 67,528,609 shares of common stock outstanding as of March 31, 2019, and excludes the following, in each case as of such date:

- 6,104,713 shares of common stock issuable upon the exercise of stock options outstanding at a weighted average exercise price of \$3.12 per share, 265,299 shares of common stock issuable upon the vesting and settlement of restricted stock units outstanding, and 1,579,848 shares of our common stock available for issuance under our 2014 Incentive Plan;
- 500,000 shares of our common stock available for issuance under our ESPP; and
- 1,891,810 shares of common stock issuable upon the exercise of warrants outstanding at a weighed exercise price of \$2.94 per share.

DILUTION

If you invest in our common stock and the warrants in this offering, your interest will be immediately diluted to the extent of the difference between the public offering price per share of our common stock and accompanying warrant in this offering and the net tangible book value per share of our common stock after this offering. As of March 31, 2019, we had a historical net tangible book value of \$4.3 million, or \$0.06 per share of common stock. Our net tangible book value represents our total assets, excluding intangible assets, less our total liabilities, divided by the number of shares of common stock outstanding on March 31, 2019.

After giving effect to the issuance and sale of shares of common stock and the warrants in this offering at the public offering price of \$ per share of our common stock and accompanying warrant and attributing no value to the warrants for purposes of such calculations (and excluding shares of our common stock to be issued upon exercise of the warrants and any proceeds to us in respect of such issuances), and after deducting the underwriting discounts and commissions and estimated offering expenses payable by us, our as adjusted net tangible book value as of March 31, 2019 would have been approximately \$ million, or \$ per share. This represents an immediate increase in as adjusted net tangible book value of \$ per share to existing stockholders and an immediate dilution in net tangible book value of \$ per share to new investors purchasing our common stock and the warrants in this offering. The following table illustrates this dilution on a per share basis:

Public offering price per share and accompanying warrant ⁽¹⁾	\$
Historical net tangible book value per share as of March 31, 2019	\$0.06
Increase per share attributable to new investors	
As adjusted net tangible book value per share as of March 31, 2019, after giving effect to this offering	
Dilution per share to new investors purchasing our common stock and warrants in this offering	\$

(1) No value is attributed to the warrants for purposes of these calculations.

To the extent that outstanding options or warrants are exercised or outstanding restricted stock units are settled for shares of our common stock, investors purchasing our common stock in this offering will experience further dilution. In addition, we may choose to raise additional capital due to market conditions or strategic considerations even if we believe we have sufficient funds for our current or future operating plans. To the extent that we raise additional capital through the sale of equity or convertible debt securities, the issuance of these securities could result in further dilution to our stockholders.

The number of shares of common stock to be outstanding after this offering excludes shares of our common stock to be issued upon exercise of the warrants offered hereby, is based on 67,528,609 shares of common stock outstanding as of March 31, 2019, and excludes the following, in each case as of such date:

- 6,104,713 shares of common stock issuable upon the exercise of stock options outstanding as of March 31, 2019 at a weighted average exercise price of \$3.12 per share, 265,299 restricted stock units outstanding, which will, after vesting, be settled in shares of our common stock, and 1,579,848 shares of our common stock available for issuance under our 2014 Incentive Plan;
- 500,000 shares of our common stock available for issuance as of March 31, 2019 under our ESPP; and
- 1,891,810 shares of common stock issuable upon the exercise of warrants outstanding as of March 31, 2019 at a weighed exercise price of \$2.94 per share.

DIVIDEND POLICY

We have never declared or paid cash dividends on our common stock and do not intend to pay cash dividends in the foreseeable future. Payment of future dividends, if any, will be at the discretion of our board of directors after taking into account various factors, including our financial condition, operating results, restrictions imposed by financing arrangements, if any, legal and regulatory restrictions on the payment of dividends, current and anticipated cash needs and other factors the board of directors deems relevant.

Our loan and security agreement with Western Alliance Bank contains a restrictive covenant that prohibits us and our subsidiaries, subject to certain exceptions, from paying dividends or making any other distribution or payment with respect to our capital stock.

DESCRIPTION OF THE SECURITIES WE ARE OFFERING

In this offering, we are offering _____ shares of our common stock and warrants to purchase up to _____ shares of our common stock. Each warrant will have an exercise price of \$ _____ per share of our common stock. No fractional warrants will be issued. The common stock and the warrants are immediately separable and will be issued separately, but they may only be purchased together in this offering. This prospectus supplement also relates to the offering of the shares of our common stock issuable upon exercise of the warrants.

Common Stock

The material terms and provisions of our common stock are described under the caption “Description of Common Stock” starting on page [8](#) of the accompanying base prospectus.

The Warrants

The material terms and provisions of the warrants being issued in this offering are summarized below. The following description is subject to, and qualified in its entirety by, the form of warrant, which will be filed by us as an exhibit to a Current Report on Form 8-K with the SEC in connection with this offering. You should review the form of warrant for a complete description of the terms and conditions applicable to the warrants. See “Information Incorporated by Reference and Available Information” on page [S-32](#).

General. Each purchaser of shares will receive a warrant to purchase a number of shares of common stock equal to the number of shares of common stock purchased by such purchaser in this offering.

Exercisability. The warrants may be exercised at any time on or after their date of issuance, will have an exercise price of \$ _____ per share and are exercisable until the fifth year anniversary of the original issuance date. The warrants will be exercisable, at the option of each holder, in whole or in part by delivering to the warrant agent a duly executed exercise notice accompanied by payment in full for the number of shares of our common stock purchased upon such exercise. The exercise price of the warrant is subject to adjustment in the event of stock dividends and distributions, stock splits, stock combinations, reclassifications or similar events affecting our common stock.

Exercise Limitations. A holder of a warrant will not have the right to exercise any portion of the warrant if the holder (together with its affiliates) 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 warrants. However, any holder may increase or decrease such percentage to any other percentage not in excess of 9.99% upon at least 61 days' prior notice from the holder to us.

Transferability. Subject to applicable laws, the warrants are separately tradeable immediately after issuance at the option of the holders of the warrants and may be transferred at the option of the holders. The warrants will be issued in book-entry form under a warrant agreement between the warrant agent and us, and shall initially be represented by one or more book-entry certificates deposited with The Depository Trust Company, or DTC, and registered in the name of Cede & Co., a nominee of DTC, or as otherwise directed by DTC.

No Listing. There is no established public trading market for the warrants and we do not expect a market to develop. In addition, we do not intend to apply for listing of the warrants on any securities exchange or recognized trading system, including Nasdaq. Without an active market, the liquidity of the warrants will be limited.

Fundamental Transactions. Before entering into any “fundamental transaction,” as defined in the form of warrant and generally including any reorganization, recapitalization or reclassification of our common stock, the sale, transfer or other disposition of all or substantially all of our properties or assets, our consolidation or merger with or into another person, the acquisition of more than 50% of our outstanding common stock, or any person or group becoming the beneficial owner of 50% of the voting power represented by our outstanding common stock, we must cause the successor entity to us to agree to provide the right to the holders of the warrants to receive, upon exercise of the warrants, the kind and amount of securities, cash or other property that the holders would have received had they exercised the

warrants immediately prior to such fundamental transaction. In the event of a fundamental transaction of which we are not the surviving entity and certain other fundamental transactions, we or any successor entity will pay, at the holder's option, exercisable at any time concurrently with or within 90 days after the consummation of the fundamental transaction, an amount of cash equal to the value of the warrant as determined in accordance with the Black Scholes option pricing model and the terms of the warrants.

Cashless Exercise. If, at the time a holder exercises its warrant, there is no effective registration statement registering, or the prospectus contained therein is not available for an issuance of the shares underlying the warrant to the holder, and the holder is not able to sell the shares issuable upon exercise of the warrant without limitations on volume pursuant to Rule 144 of the Securities Act, then in lieu of making the cash payment otherwise contemplated to be made to us upon such exercise in payment of the aggregate exercise price, the holder may elect instead to receive upon such exercise (either in whole or in part) the net number of shares of our common stock determined according to a formula set forth in the warrant. In the event of a cashless exercise, if we fail to timely deliver the shares underlying the warrants, we will be subject to certain buy-in provisions.

Rights as a Stockholder. Except as otherwise provided in the warrant 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, until they exercise their warrants.

Anti-Dilution. The warrants contain a price protection feature, pursuant to which, to the extent such warrants have not been exercised previously, if shares of common stock are sold or issued in the future, or securities convertible or exercisable for shares of our common stock are sold or issued in the future, for consideration, or with an exercise price or conversion price, as applicable, per share less than the exercise price per share then in effect, the exercise price of the warrants is reduced to the consideration paid for, or the exercise price or conversion price of, as the case may be, the securities issued in such offering. Certain exceptions apply to this price protection feature.

Variable Price Transactions. If we effect or enter into any issuance of common stock or options or convertible securities exercisable for or convertible into our common stock at a price which varies or may vary with the market price of the shares of our common stock, subject to certain exceptions, a warrant holder may, at the time of exercise of the holder's warrant, elect to exercise the warrant at such variable price.

Amendments. Amendments and waivers of the terms of any warrant requires the written consent of the holder of such warrant.

No Fractional Shares. No fractional shares or scrip representing fractional shares shall be issued upon the exercise of the warrants. As to any fraction of a share which the holder would otherwise be entitled to purchase upon such exercise, we shall cause the warrant agent to, at our option, pay a cash adjustment in respect of such final fraction in an amount equal to such fraction multiplied by the exercise price of the warrant per whole share or round such fractional share up to the nearest whole share.

Warrant Agent. Our warrant agent is VStock Transfer, LLC.

MATERIAL U.S. FEDERAL INCOME TAX CONSEQUENCES

The following is a general discussion of the material U.S. federal income tax considerations applicable to the ownership and disposition of shares of our common stock and the warrants acquired in this offering. This discussion is for general information only and is not tax advice. Accordingly, all prospective holders of our common stock and warrants should consult their own tax advisors with respect to the U.S. federal, state, local, estate and non-U.S. tax consequences of the purchase, ownership and disposition of our common stock and warrants. The effects of other U.S. federal tax laws, such as estate and gift tax laws, and any applicable state, local or non-U.S. tax laws are not discussed. This discussion is based on current provisions of the U.S. Internal Revenue Code of 1986, as amended (the "Code"), existing and proposed U.S. Treasury Regulations promulgated thereunder, current administrative rulings and judicial decisions, all as in effect as of the date of this prospectus supplement, all of which are subject to change or to differing interpretation, possibly with retroactive effect. Any change could alter the tax consequences described in this prospectus supplement. We assume in this discussion that each holder holds shares of our common stock and warrants as capital assets within the meaning of Section 1221 of the Code (generally property held for investment).

This discussion does not address all aspects of U.S. federal income taxation that may be relevant to a particular holder in light of that holder's individual circumstances, does not address the alternative minimum or Medicare contribution taxes, and does not address any aspects of U.S. state, local or non-U.S. taxes or, except as specifically provided below, any U.S. federal taxes other than income tax. This discussion also does not consider any specific facts or circumstances that may apply to a holder of our common stock and warrants, and does not address aspects of U.S. federal income taxation that may be applicable to investors that are subject to special tax rules, including without limitation:

- insurance companies;
- tax-exempt organizations;
- financial institutions;
- brokers or dealers in securities;
- regulated investment companies;
- real estate investment trusts;
- pension plans, individual retirement accounts and other tax deferred accounts;
- persons that mark their securities to market;
- controlled foreign corporations;
- passive foreign investment companies;
- "dual resident" corporations;
- persons that receive our common stock or warrants as compensation for the performance of services;
- owners that hold our common stock or warrants as part of a straddle, hedge, conversion transaction, synthetic security or other integrated investment;
- owners that own, or are deemed to own, more than 5% of our common stock or warrants (except to the extent specifically set forth below);
- persons that have a functional currency other than the U.S. dollar; and
- certain U.S. expatriates.

In addition, this discussion does not address the tax treatment of partnerships or other pass-through entities or arrangements for U.S. federal income tax purposes, or persons who hold our common stock or warrants through partnerships or other pass-through entities or arrangements for U.S. federal income tax

purposes. A partner in a partnership or other pass-through entity or arrangement that will hold our common stock or warrants should consult his, her or its own tax advisor regarding the tax consequences of acquiring, holding and disposing of our common stock or warrants through a partnership or other pass-through entity or arrangement, as applicable.

There can be no assurance that the Internal Revenue Service (“IRS”), will not challenge one or more of the tax consequences described herein. We have not obtained, nor do we intend to obtain, a ruling from the IRS with respect to the U.S. federal income tax consequences of the purchase, ownership or disposition of our common stock or warrants.

THIS DISCUSSION IS NOT TAX ADVICE. INVESTORS SHOULD CONSULT THEIR TAX ADVISORS WITH RESPECT TO THE APPLICATION OF THE U.S. FEDERAL INCOME TAX LAWS TO THEIR PARTICULAR SITUATIONS AS WELL AS ANY TAX CONSEQUENCES OF THE PURCHASE, OWNERSHIP AND DISPOSITION OF OUR COMMON STOCK ARISING UNDER THE U.S. FEDERAL ESTATE OR GIFT TAX LAWS OR UNDER THE LAWS OF ANY STATE, LOCAL OR NON-U.S. TAXING JURISDICTION OR UNDER ANY APPLICABLE INCOME TAX TREATY.

Allocation of Purchase Price Between Common Stock and Warrants to Purchase Our Common Stock

Each share of common stock will be issued together with a warrant, and each holder of our common stock and warrants must allocate the purchase price paid by such holder for our common stock and a warrant between the share of common stock and the warrant based on the relative fair market value of each. This allocation will establish a holder's initial tax basis for U.S. federal income tax purposes in their shares of common stock and warrants. We will not be providing holders with such allocation, and it is possible that different holders will reach different determinations regarding such allocation. A holder's allocation of purchase price between common stock and warrants is not binding on the IRS or the courts, and no assurance can be given that the IRS or the courts will agree with a holder's allocation.

Accordingly, each prospective holder should consult their own tax advisor with respect to the risks associated with an allocation of the purchase price between our common stock and the warrants.

U.S. Holders

For purposes of this discussion, a “U.S. holder” means a beneficial owner of our common stock and warrants who is for U.S. federal income tax purposes:

- (i) an individual who is a citizen or resident of the United States;
- (ii) a corporation, or any other organization taxable as a corporation, created or organized in the United States or under the laws of the United States or of any state thereof or the District of Columbia;
- (iii) an estate, the income of which is subject to U.S. federal income tax regardless of its source; or
- (iv) a trust if (1) a U.S. court is able to exercise primary supervision over the trust's administration and one or more U.S. persons have the authority to control all of the trust's substantial decisions or (2) the trust has a valid election in effect under applicable U.S. Treasury Regulations to be treated as a U.S. person.

Distributions on Our Common Stock and Warrants

As described in the section titled “— Dividend Policy,” we have never declared or paid cash dividends on our common stock and do not intend to pay cash dividends in the foreseeable future. However, if we do make distributions of cash or property on our common stock, such distributions will constitute dividends for U.S. federal income tax purposes to the extent paid from our current or accumulated earnings and profits, as determined under U.S. federal income tax principles. Amounts not treated as dividends for U.S. federal income tax purposes will constitute a return of capital and first be applied against and reduce a Non-U.S. holder's adjusted tax basis in its common stock, but not below zero. Any excess will be treated as capital gain and will be treated as described below under “— Sale, Exchange or Other Taxable Disposition

of Our Common Stock or Warrants.” Dividends paid by us generally will be eligible for the reduced rates of tax for qualified dividend income allowed to individual U.S. holders and for the dividends received deduction allowed to corporate U.S. holders, in each case assuming that certain holding period and other requirements are satisfied.

While it is not free from doubt, we expect that cash distributions paid on the warrants, on an “as-converted” basis, if any, should be subject to the same tax consequences as described in the preceding paragraph for the common stock; however, distributions received in respect of a warrant may not qualify for the lower tax rates applicable to qualified dividend income. U.S. holders should consult their own tax advisors regarding the proper treatment of any distributions paid on the warrants.

Certain events, such as adjustments to the exercise price of the warrants, could, in some circumstances, result in a deemed taxable distribution to a U.S. holder if the adjustment has the effect of increasing the proportionate interest of the U.S. holder in our earnings and profits or assets, without regard to whether the U.S. holder receives any cash or other property. However, adjustments to the exercise price of the warrants made pursuant to a bona fide reasonable adjustment formula that has the effect of preventing the dilution of the interests of U.S. holders generally will not result in a deemed taxable distribution. If a deemed taxable distribution occurs, such deemed distribution would be taxable as a dividend, return of capital or capital gain in accordance with the rules discussed herein, and U.S. holders may recognize income as a result even though they receive no cash or property.

Exercise of Warrants

Except as discussed below with respect to the cashless exercise of a warrant, a U.S. holder should not recognize gain or loss on the exercise of warrants. A U.S. holder's tax basis in the common stock received upon exercise will equal the sum of (i) the initial tax basis of the warrants exercised and (ii) price paid upon exercise. The U.S. holder's holding period for the common stock received upon exercise of the warrants will begin on the date following the date of exercise of the warrants and will not include the period during which the U.S. holder held the warrants.

The tax treatment of a cashless exercise of a warrant is uncertain. Although the matter is not free from doubt, we intend to take the position that a cashless exercise should be treated as a tax-free transaction in which a holder's tax basis in the common stock received should equal the sum of the U.S. holder's tax basis in the exercised warrants (including any warrants surrendered in the cashless exercise). It is also possible, however, that a cashless exercise could be treated as a taxable transaction, and a U.S. holder could recognize taxable gain or loss in an amount equal to the difference between the exercise price deemed paid and the U.S. holder's tax basis in the surrendered warrants. In this case, a U.S. holder's tax basis in the common stock received should equal the sum of the exercise price deemed paid and the U.S. holder's tax basis in the warrants exercised. Any gain recognized should generally be subject to the tax treatment described above under “— Sale, Exchange or Other Taxable Disposition of Our Common Stock or Warrants”.

The holding period for common stock acquired in a cashless exercise will depend on the U.S. federal income tax treatment of a cashless exercise. The holding period for a share of common stock acquired in a cashless exercise would include the holding period of the warrants if the cashless exercise is treated as a tax-free transaction. The holding period for a share of common stock acquired in a cashless exercise would begin on the day following the date of exercise if the cashless exercise is treated as a taxable exchange or treated similarly to a cash exercise.

Due to the absence of authority on the U.S. federal income tax treatment of a cashless exercise, there can be no assurance which, if any, of the alternative tax consequences and holding periods described above would be adopted by the IRS or a court of law. Accordingly, U.S. holders should consult their own tax advisors regarding the tax consequences of a cashless exercise.

If a warrant is allowed to lapse unexercised, a U.S. holder generally will recognize a capital loss equal to such holder's tax basis in the warrant. Such loss will be long-term capital loss if the warrant has been held for more than one year as of the date the warrant lapsed and will otherwise be short-term capital loss. The deductibility of capital losses is subject to significant limitations.

Sale, Exchange or Other Taxable Disposition of Our Common Stock or Warrants

Upon the sale, exchange, or other taxable disposition of our common stock or warrants, a U.S. holder will recognize gain or loss equal to the difference between the amount realized upon the disposition and the U.S. holder's tax basis in the common stock or warrants disposed of. Any gain or loss generally will be capital gain or loss, and will be long-term capital gain or loss if the U.S. holder's holding period for the common stock or warrants exceeded one year at the time of the disposition. Certain U.S. holders (including individuals) are currently eligible for preferential rates of U.S. federal income taxation in respect of long-term capital gains. The deductibility of capital losses is subject to significant limitations.

Backup withholding and Information Reporting

Information reporting requirements generally will apply to payments of dividends on shares of common stock and to the proceeds of a sale of common stock unless a U.S. holder is an exempt recipient, such as a corporation. Backup withholding will apply to those payments if a U.S. holder fails to provide its correct taxpayer identification number and certification of exempt status, or fails to report in full dividend income. Any amount withheld under the backup withholding rules will be allowed as a refund or a credit against U.S. federal income tax liability, provided the required information is timely furnished to the IRS.

Election not to Accept Warrants

This discussion does not address the federal income tax consequences to an opt-out investor of electing not to accept warrants. Each holder should consult his, her or its own tax advisor regarding the federal income tax consequences of electing not to accept warrants, including the impact on the holder's tax basis in its common stock and warrants, if any.

Non-U.S. Holders

For purposes of this discussion, a "non-U.S. holder" is any beneficial owner of our common stock or warrants that is neither a "U.S. holder, as described above, nor an entity or arrangements treated as a partnership for U.S. federal income tax purposes.

Distributions on our Common Stock and Warrants

As described in the section titled "— Dividend Policy," we have never declared or paid any cash dividends on our capital stock and we do not expect to pay any cash dividends on our common stock in the foreseeable future. However, if we do make distributions of cash or property on our common stock, such distributions will constitute dividends for U.S. federal income tax purposes to the extent paid from our current or accumulated earnings and profits, as determined under U.S. federal income tax principles. Amounts not treated as dividends for U.S. federal income tax purposes will constitute a return of capital and first be applied against and reduce a Non-U.S. holder's adjusted tax basis in its common stock, but not below zero. Any excess will be treated as capital gain and will be treated as described below under "— Sale or Other Taxable Disposition."

Subject to the discussion below regarding effectively connected income, dividends paid to a Non-U.S. holder will be subject to U.S. federal withholding tax at a rate of 30% of the gross amount of the dividends (or such lower rate specified by an applicable income tax treaty, provided the Non-U.S. holder furnishes a valid IRS Form W-8BEN or W-8BEN-E (or other applicable documentation) certifying qualification for the lower treaty rate). A Non-U.S. holder that does not timely furnish the required documentation, but that qualifies for a reduced treaty rate, may obtain a refund of any excess amounts withheld by timely filing an appropriate claim for refund with the IRS. Non-U.S. holders should consult their tax advisors regarding their entitlement to benefits under any applicable tax treaties.

If dividends paid to a Non-U.S. holder are effectively connected with the Non-U.S. holder's conduct of a trade or business within the United States (and, if required by an applicable income tax treaty, the Non-U.S. holder maintains a permanent establishment in the United States to which such dividends are attributable), the Non-U.S. holder will be exempt from the U.S. federal withholding tax described above. To claim the exemption, the Non-U.S. holder must furnish to the applicable withholding agent a valid IRS Form W-8ECI, certifying that the dividends are effectively connected with the Non-U.S. holder's conduct of a trade or business within the United States.

Any such effectively connected dividends will be subject to U.S. federal income tax on a net income basis at the regular graduated rates. A Non-U.S. holder that is a corporation also may be subject to a branch profits tax at a rate of 30% (or such lower rate specified by an applicable income tax treaty) on such effectively connected dividends, as adjusted for certain items. Non-U.S. holders should consult their tax advisors regarding any applicable tax treaties that may provide for different rules.

While it is not free from doubt, we expect that cash distributions paid on the warrants, on an “as-converted” basis, if any, should be subject to the same tax consequences as described in the third preceding paragraph for the common stock. Non-U.S. holders should consult their own tax advisors regarding the proper treatment of any distributions paid on the warrants.

Exercise of Warrants

The U.S. federal income tax treatment of a non-U.S. holder’s exercise of a warrant, or the lapse of a warrant held by a non-U.S. holder, generally will correspond to the U.S. federal income tax treatment of the exercise or lapse of a warrant by a U.S. holder, as described under “— U.S. holders-Exercise of Warrants” above; provided, however, that any gain recognized on an exercise of a warrant will generally be subject to U.S. federal income tax only in the limited circumstances described under “— Sale or Other Taxable Disposition” below and a non-U.S. holder generally will not recognize a capital loss on the lapse or expiration of a warrant unless such non-U.S. holder is otherwise subject to U.S. federal income tax.

Sale or Other Taxable Disposition

Subject to the discussions below regarding backup withholding and FATCA, a non-U.S. holder will not be subject to U.S. federal income tax on any gain realized upon the sale or other taxable disposition of our common stock or warrants unless:

- the gain is effectively connected with the Non-U.S. holder’s conduct of a trade or business within the United States (and, if required by an applicable income tax treaty, the non-U.S. holder maintains a permanent establishment in the United States to which such gain is attributable);
- the non-U.S. holder is a nonresident alien individual present in the United States for 183 days or more during the taxable year of the disposition and certain other requirements are met; or
- our common stock constitutes a U.S. real property interest (“USRPI”) by reason of our status as a U.S. real property holding corporation (“USRPHC”) for U.S. federal income tax purposes.

Gain described in the first bullet point above generally will be subject to U.S. federal income tax on a net income basis at the regular graduated rates. A non-U.S. holder that is a corporation also may be subject to a branch profits tax at a rate of 30% (or such lower rate specified by an applicable income tax treaty) on such effectively connected gain, as adjusted for certain items.

Gain described in the second bullet point above will be subject to U.S. federal income tax at a rate of 30% (or such lower rate specified by an applicable income tax treaty), which may be offset by certain U.S. source capital losses of the non-U.S. holder (even though the individual is not considered a resident of the United States), provided the non-U.S. holder has timely filed U.S. federal income tax returns with respect to such losses.

With respect to the third bullet point above, we believe we currently are not, and do not anticipate becoming, a USRPHC. Because the determination of whether we are a USRPHC depends, however, on the fair market value of our USRPIs relative to the fair market value of our non-U.S. real property interests and our other business assets, there can be no assurance we currently are not a USRPHC or will not become one in the future. Even if we are or were to become a USRPHC, gain arising from the sale or other taxable disposition of our common stock by a Non-U.S. holder will not be subject to U.S. federal income tax if our common stock is “regularly traded,” as defined by applicable Treasury Regulations, on an established securities market, and such Non-U.S. holder owned, actually and constructively, 5% or less of our common stock throughout the shorter of the five-year period ending on the date of the sale or other taxable disposition or the Non-U.S. holder’s holding period.

Non-U.S. holders should consult their tax advisors regarding any applicable tax treaties that may provide for different rules.

Information Reporting and Backup Withholding

Payments of dividends on our common stock will not be subject to backup withholding, provided the Non-U.S. holder certifies its non-U.S. status, such as by furnishing a valid IRS Form W-8BEN, W-8BEN-E or W-8ECI, or otherwise establishes an exemption. However, information returns are required to be filed with the IRS in connection with any dividends on our common stock paid to the Non-U.S. holder, regardless of whether any tax was actually withheld. In addition, proceeds of the sale or other taxable disposition of our common stock or warrants within the United States or conducted through certain U.S.-related brokers generally will not be subject to backup withholding or information reporting if the applicable withholding agent receives the certification described above or the Non-U.S. holder otherwise establishes an exemption.

Copies of information returns that are filed with the IRS may also be made available under the provisions of an applicable treaty or agreement to the tax authorities of the country in which the Non-U.S. holder resides or is established.

Backup withholding is not an additional tax. Any amounts withheld under the backup withholding rules may be allowed as a refund or a credit against a Non-U.S. holder's U.S. federal income tax liability, provided the required information is timely furnished to the IRS.

Additional Withholding Tax on Payments Made to Foreign Accounts

Withholding taxes may be imposed under Sections 1471 to 1474 of the Code (such Sections commonly referred to as the Foreign Account Tax Compliance Act, or FATCA) on certain types of payments made to non-U.S. financial institutions and certain other non-U.S. entities. Specifically, a 30% withholding tax may be imposed on dividends on, or (subject to the proposed Treasury Regulations discussed below) gross proceeds from the sale or other disposition of, our common stock or warrants paid to a "foreign financial institution" or a "non-financial foreign entity" (each as defined in the Code), unless (1) the foreign financial institution undertakes certain diligence and reporting obligations, (2) the non-financial foreign entity either certifies it does not have any "substantial United States owners" (as defined in the Code) or furnishes identifying information regarding each substantial United States owner, or (3) the foreign financial institution or non-financial foreign entity otherwise qualifies for an exemption from these rules. If the payee is a foreign financial institution and is subject to the diligence and reporting requirements in (1) above, it must enter into an agreement with the U.S. Department of the Treasury requiring, among other things, that it undertake to identify accounts held by certain "specified United States persons" or "United States-owned foreign entities" (each as defined in the Code), annually report certain information about such accounts, and withhold 30% on certain payments to non-compliant foreign financial institutions and certain other account holders. Foreign financial institutions located in jurisdictions that have an intergovernmental agreement with the United States governing FATCA may be subject to different rules.

Under the applicable Treasury Regulations and administrative guidance, withholding under FATCA generally applies to payments of dividends on our common stock or deemed paid on the warrants. While, beginning on January 1, 2019, withholding under FATCA would have applied also to payments of gross proceeds from the sale or other disposition of our common stock or warrants, recently proposed Treasury Regulations eliminate FATCA withholding on payments of gross proceeds entirely. Taxpayers generally may rely on these proposed Treasury Regulations until final Treasury Regulations are issued.

Prospective investors should consult their tax advisors regarding the potential application of withholding under FATCA to their investment in our common stock and warrants.

UNDERWRITING

Subject to the terms and conditions set forth in the underwriting agreement, dated _____, 2019, among us, Cantor Fitzgerald & Co. and SunTrust Robinson Humphrey, Inc., as joint book-running managers and representatives of the underwriters named below (together, the “Representatives”), we have agreed to sell to the underwriters and each of the underwriters has agreed, severally and not jointly, to purchase from us, the shares of common stock and accompanying warrants shown opposite its name below:

Underwriter	Number of Shares	Number of Accompanying Warrants
Cantor Fitzgerald & Co.	_____	_____
SunTrust Robinson Humphrey, Inc.	_____	_____
Total	=====	=====

The underwriting agreement provides that the obligations of the several underwriters are subject to certain conditions precedent such as the receipt by the underwriters of officers’ certificates and legal opinions and approval of certain legal matters by their counsel. The underwriting agreement provides that the underwriters will purchase all of the shares of common stock and accompanying warrants if any of them are purchased. We have agreed to indemnify the underwriters and certain of their controlling persons against certain liabilities, including liabilities under the Securities Act, and to contribute to payments that the underwriters may be required to make in respect of those liabilities.

The underwriters are offering the shares of common stock and accompanying warrants subject to their acceptance of the shares of common stock and accompanying warrants from us and subject to prior sale. The underwriters reserve the right to withdraw, cancel or modify offers to the public and to reject orders in whole or in part.

Commission and Expenses

The underwriters have advised us that they propose to offer the shares of common stock and accompanying warrants to the public at the public offering price set forth on the cover page of this prospectus supplement and to certain dealers, which may include the underwriters, at that price less a concession not in excess of \$ _____ per share of common stock and accompanying warrant. After the initial offering, the Representatives may change the offering price and other selling terms.

The following table shows the public offering price, the underwriting discounts and commissions that we are to pay the underwriters and the proceeds, before expenses, to us in connection with this offering. Any opt-out investor will pay the public offering price per share and accompanying warrant.

	Per Share and Accompanying Warrants	Total
Public offering price	\$ _____	\$ _____
Underwriting discounts and commissions	\$ _____	\$ _____
Proceeds to us, before expenses	\$ _____	\$ _____

We estimate expenses payable by us in connection with this offering, other than the underwriting discounts and commissions referred to above, will be approximately \$. We have also agreed to reimburse the underwriters for up to \$30,000 of certain of their counsels' fees and expenses, which reimbursed fee is deemed underwriting compensation for this offering by FINRA.

Listing

Our common stock is listed on The Nasdaq Capital Market under the trading symbol "EKSO." There is no established public trading market for the warrants and we do not expect a market to develop. In addition, we do not intend to apply for listing of the warrants on any securities exchange or recognized trading system, including Nasdaq. The warrants will be issued in book-entry form pursuant to a warrant agency agreement between us and VStock Transfer, LLC, as warrant agent.

No Sales of Similar Securities

We, our officers, our directors and certain of our stockholders have agreed, subject to certain specified exceptions, not to directly or indirectly, without the prior written consent of the Representatives, which may withhold their consent in their sole discretion, for a period of 90 days after the date of the underwriting agreement:

- sell, offer to sell, contract to sell or lend, effect any short sale or establish or increase a Put Equivalent Position (as defined in Rule 16a-1(h) under the Exchange Act) or liquidate or decrease any Call Equivalent Position (as defined in Rule 16a-1(b) under the Exchange Act), pledge, hypothecate or grant any security interest in, or in any other way transfer or dispose of, any shares of our common stock or any securities convertible into or exchangeable or exercisable for shares of our common stock, in each case whether now owned or hereafter acquired by the applicable officer, director or stockholder or with respect to which the applicable officer, director or stockholder has or hereafter acquires the power of disposition (collectively, the "Lock-Up Securities"),
- make any demand for, or exercise any right with respect to the registration of any of the Lock-Up Securities, or the filing of any registration statement, prospectus or prospectus supplement (or an amendment or supplement thereto) in connection therewith, under the Securities Act,
- enter into any swap, hedge or any other agreement or any transaction that transfers, in whole or in part, the economic consequence of ownership of the Lock-Up Securities, whether any such swap or transaction is to be settled by delivery of shares of our common stock or other securities, in cash or otherwise, or
- publicly announce an intention to do any of the foregoing.

The restrictions in the immediately preceding paragraph do not apply with respect to our officers, directors and applicable stockholders in certain circumstances, including:

- transfers as a bona fide gift or gifts;
- transfers to any trust for the direct or indirect benefit of such persons or the immediate family of such persons;
- transfers pursuant to a qualified domestic order or in connection with a divorce settlement;
- transfers by will or intestate succession to the legal representative, heir, beneficiary or immediate family of such persons upon the death of such persons;
- transfers or other disposition made by such persons to us or in an open market transaction to satisfy tax withholding obligations related to the exercise, issuance or settlement of shares of our common stock pursuant to our equity incentive plans or arrangements disclosed in the prospectus; and
- the transfer of shares of our common stock or any security convertible into or exercisable or exchangeable for our common stock pursuant to a liquidation, tender offer, merger, consolidation, binding share exchange or other similar transaction involving a change in control of the Company

that results in all of our stockholders having the right to exchange their common stock for cash, securities or other property; provided that if such transaction is not consummated, any such securities shall remain subject to the restrictions set forth in the lock-up agreements.

The restrictions in the second preceding paragraph do not apply with respect to us in certain circumstances, including:

- the offer and sale of our securities contemplated by this prospectus supplement and the accompanying base prospectus;
- the offer and sale of shares of our common stock pursuant to any stock option, stock bonus or other stock plan or arrangement described in this prospectus supplement or the accompanying base prospectus (subject to certain restrictions with respect to our directors, officers and certain stockholders);
- offer and sale of shares of our common stock pursuant to outstanding warrants and the warrants offered hereby;
- filing of a registration statement on Form S-8 to register the offer and sale of shares of our common stock issuable pursuant to any stock option, stock bonus or other stock plan or arrangement; and
- offer and sale shares of our common stock in connection with any joint venture, commercial or collaborative relationship.

The Representatives may, in their sole discretion and at any time or from time to time before the termination of the 90-day period release all or any portion of the securities subject to lock-up agreements.

Market Making, Stabilization and Other Transactions

The underwriters may make a market in the common stock as permitted by applicable laws and regulations. However, the underwriters are not obligated to do so, and the underwriters may discontinue any market-making activities at any time without notice in their sole discretion. Accordingly, no assurance can be given as to the liquidity of the trading market for the common stock, that you will be able to sell any of the common stock held by you at a particular time or that the prices that you receive when you sell will be favorable.

The underwriters have advised us that they, pursuant to Regulation M under the Exchange Act, may engage in short sale transactions, stabilizing transactions, syndicate covering transactions or the imposition of penalty bids in connection with this offering. These activities may have the effect of stabilizing or maintaining the market price of the common stock at a level above that which might otherwise prevail in the open market.

A stabilizing bid is a bid for the purchase of shares of common stock on behalf of the underwriters for the purpose of fixing or maintaining the price of the common stock. A syndicate covering transaction is the bid for or the purchase of shares of common stock on behalf of the underwriters to reduce a short position incurred by the underwriters in connection with the offering. Similar to other purchase transactions, the underwriters' purchases to cover the syndicate short sales may have the effect of raising or maintaining the market price of our common stock or preventing or retarding a decline in the market price of our common stock. As a result, the price of our common stock may be higher than the price that might otherwise exist in the open market. A penalty bid is an arrangement permitting the underwriters to reclaim the selling concession otherwise accruing to a syndicate member in connection with the offering if the securities originally sold by such syndicate member are purchased in a syndicate covering transaction and therefore have not been effectively placed by such syndicate member.

Neither we, nor any of the underwriters make any representation or prediction as to the direction or magnitude of any effect that the transactions described above may have on the price of our common stock. The underwriters are not obligated to engage in these activities and, if commenced, may end any of these activities at any time.

Passive Market Making

The underwriters may also engage in passive market making transactions in our common stock on the Nasdaq in accordance with Rule 103 of Regulation M during a period before the commencement of offers or sales of our securities in this offering and extending through the completion of distribution. A passive market maker must display its bid at a price not in excess of the highest independent bid of that security. However, if all independent bids are lowered below the passive market maker's bid, that bid must then be lowered when specified purchase limits are exceeded. Passive market making may cause the price of our common stock to be higher than the price that otherwise would exist in the open market in the absence of those transactions. The underwriters are not required to engage in passive market making and, if commenced, may end passive market making activities at any time.

Electronic Distribution

A prospectus in electronic format may be made available by e-mail or on the web sites or through online services maintained by one or more of the underwriters, selling group members (if any) or their affiliates. The underwriters may agree with us to allocate a specific number of our securities for sale to online brokerage account holders. Any such allocation for online distributions will be made by the underwriters on the same basis as other allocations. Other than the prospectus in electronic format, the information on the underwriters' web sites and any information contained in any other web site maintained by any of the underwriters is not part of this prospectus supplement, has not been approved and/or endorsed by us or the underwriters and should not be relied upon by investors.

Other Activities and Relationships

The underwriters and certain of their respective affiliates are full service financial institutions engaged in a wide range of activities for their own accounts and the accounts of customers, which may include, among other things, corporate finance, mergers and acquisitions, merchant banking, equity and fixed income sales, trading and research, derivatives, foreign exchange, futures, asset management, custody, clearance and securities lending. The underwriters and certain of their affiliates have, from time to time, performed, and may in the future perform, various investment banking and financial advisory services for us and our affiliates, for which they received or will receive customary fees and expenses.

In addition, in the ordinary course of its business, the underwriters and their respective affiliates may, directly or indirectly, hold long or short positions, trade and otherwise conduct such activities in or with respect to debt or equity securities and/or bank debt of, and/or derivative products. Such investment and securities activities may involve our securities and instruments. The underwriters and their respective affiliates may also make investment recommendations or publish or express independent research views in respect of such securities or instruments and may at any time hold, or recommend to clients that they acquire, long or short positions in such securities and instruments. Cantor Fitzgerald & Co. is the agent under our Controlled Equity OfferingSM Sales Agreement, dated August 21, 2018.

Stamp Taxes

If you purchase securities offered in this prospectus supplement, you may be required to pay stamp taxes and other charges under the laws and practices of the country of purchase, in addition to the offering price listed on the cover page of this prospectus supplement.

NOTICE TO INVESTORS

Canada

This prospectus constitutes an “exempt offering document” as defined in and for the purposes of applicable Canadian securities laws. No prospectus has been filed with any securities commission or similar regulatory authority in Canada in connection with the offer and sale of our securities. No securities commission or similar regulatory authority in Canada has reviewed or in any way passed upon this prospectus supplement or on the merits of our securities and any representation to the contrary is an offence.

Canadian investors are advised that this prospectus has been prepared in reliance on section 3A.3 of National Instrument 33-105 *Underwriting Conflicts* (“NI 33-105”). Pursuant to section 3A.3 of NI 33-105, this prospectus is exempt from the requirement that the Company and the underwriter(s) provide investors with certain conflicts of interest disclosure pertaining to “connected issuer” and/or “related issuer” relationships that may exist between the Company and the underwriter(s) as would otherwise be required pursuant to subsection 2.1(1) of NI 33-105.

Resale Restrictions

The offer and sale of our securities in Canada is being made on a private placement basis only and is exempt from the requirement that we prepare and file a prospectus under applicable Canadian securities laws. Any resale of our securities acquired by a Canadian investor in this offering must be made in accordance with applicable Canadian securities laws, which may vary depending on the relevant jurisdiction, and which may require resales to be made in accordance with Canadian prospectus requirements, pursuant to a statutory exemption from the prospectus requirements, in a transaction exempt from the prospectus requirements or otherwise under a discretionary exemption from the prospectus requirements granted by the applicable local Canadian securities regulatory authority. These resale restrictions may under certain circumstances apply to resales of our securities outside of Canada.

Representations of Purchasers

Each Canadian investor who purchases our securities will be deemed to have represented to us and the underwriter(s) that the investor (i) is purchasing our securities as principal, or is deemed to be purchasing as principal in accordance with applicable Canadian securities laws, for investment only and not with a view to resale or redistribution; (ii) is an “accredited investor” as such term is defined in section 1.1 of National Instrument 45-106 *Prospectus Exemptions* (“NI 45-106”) or, in Ontario, as such term is defined in section 73.3(1) of the *Securities Act* (Ontario); and (iii) is a “permitted client” as such term is defined in section 1.1 of National Instrument 31-103 *Registration Requirements, Exemptions and Ongoing Registrant Obligations*.

Taxation and Eligibility for Investment

Any discussion of taxation and related matters contained in this prospectus does not purport to be a comprehensive description of all of the tax considerations that may be relevant to a Canadian investor when deciding to purchase the securities and, in particular, does not address any Canadian tax considerations. No representation or warranty is hereby made as to the tax consequences to a resident, or deemed resident, of Canada of an investment in the securities or with respect to the eligibility of the securities for investment by such investor under relevant Canadian federal and provincial legislation and regulations.

Rights of Action for Damages or Rescission

Securities legislation in certain of the Canadian jurisdictions provides certain purchasers of securities pursuant to an offering memorandum (such as this prospectus supplement), including where the distribution involves an “eligible foreign security” as such term is defined in Ontario Securities Commission Rule 45-501 *Ontario Prospectus and Registration Exemptions* and in Multilateral Instrument 45-107 *Listing Representation and Statutory Rights of Action Disclosure Exemptions*, as applicable, with a remedy for damages or rescission, or both, in addition to any other rights they may have at law, where the offering

memorandum, or other offering document that constitutes an offering memorandum, and any amendment thereto, contains a “misrepresentation” as defined under applicable Canadian securities laws. These remedies, or notice with respect to these remedies, must be exercised or delivered, as the case may be, by the purchaser within the time limits prescribed under, and are subject to limitations and defences under, applicable Canadian securities legislation. In addition, these remedies are in addition to and without derogation from any other right or remedy available at law to the investor.

Language of Documents

Upon receipt of this document, each Canadian investor hereby confirms that it has expressly requested that all documents evidencing or relating in any way to the sale of the securities described herein (including for greater certainty any purchase confirmation or any notice) be drawn up in the English language only. *Par la réception de ce document, chaque investisseur Canadien confirme par les présentes qu’il a expressément exigé que tous les documents faisant foi ou se rapportant de quelque manière que ce soit à la vente des valeurs mobilières décrites aux présentes (incluant, pour plus de certitude, toute confirmation d’achat ou tout avis) soient rédigés en anglais seulement.*

Australia

This prospectus is not a disclosure document for the purposes of Australia’s Corporations Act 2001 (Cth) of Australia, or Corporations Act, has not been lodged with the Australian Securities & Investments Commission and is only directed to the categories of exempt persons set out below. Accordingly, if you receive this prospectus in Australia:

You confirm and warrant that you are either:

- a “sophisticated investor” under section 708(8)(a) or (b) of the Corporations Act;
- a “sophisticated investor” under section 708(8)(c) or (d) of the Corporations Act and that you have provided an accountant’s certificate to the company which complies with the requirements of section 708(8)(c)(i) or (ii) of the Corporations Act and related regulations before the offer has been made; or
- a “professional investor” within the meaning of section 708(11)(a) or (b) of the Corporations Act.

To the extent that you are unable to confirm or warrant that you are an exempt sophisticated investor or professional investor under the Corporations Act any offer made to you under this prospectus is void and incapable of acceptance.

You warrant and agree that you will not offer any of our securities issued to you pursuant to this prospectus for resale in Australia within 12 months of those securities being issued unless any such resale offer is exempt from the requirement to issue a disclosure document under section 708 of the Corporations Act.

European Economic Area

In relation to each Member State of the European Economic Area, no offer of any securities which are the subject of the offering contemplated by this prospectus has been or will be made to the public in that Member State other than any offer where a prospectus has been or will be published in relation to such securities that has been approved by the competent authority in that Member State or, where appropriate, approved in another Member State and notified to the relevant competent authority in that Member State in accordance with the Prospectus Directive, except that an offer of such securities may be made to the public in that Member State:

- to any legal entity which is a “qualified investor” as defined in the Prospectus Directive;
- to fewer than 150, natural or legal persons (other than qualified investors as defined in the Prospectus Directive), as permitted under the Prospectus Directive, subject to obtaining the prior consent of the representatives of the underwriters for any such offer; or
- in any other circumstances falling within Article 3(2) of the Prospectus Directive,

provided that no such offer of securities shall require us or any of the underwriters to publish a prospectus pursuant to Article 3 of the Prospectus Directive or supplement a prospectus pursuant to Article 16 of the Prospectus Directive.

For the purposes of this provision, the expression an “offer to the public” in relation to any securities in any Member State means the communication in any form and by any means of sufficient information on the terms of the offer and the securities to be offered so as to enable an investor to decide to purchase or subscribe the securities, as the same may be varied in that Member State by any measure implementing the Prospectus Directive in that Member State and the expression “Prospectus Directive” means Directive 2003/71/EC (and amendments thereto, including the 2010 PD Amending Directive), and includes any relevant implementing measure in the Member State and the expression “2010 PD Amending Directive” means Directive 2010/73/EU.

Hong Kong

No securities have been offered or sold, and no securities may be offered or sold, in Hong Kong, by means of any document, other than to persons whose ordinary business is to buy or sell shares or debentures, whether as principal or agent; or to “professional investors” as defined in the Securities and Futures Ordinance (Cap. 571) of Hong Kong and any rules made under that Ordinance; or in other circumstances which do not result in the document being a “prospectus” as defined in the Companies Ordinance (Cap. 32) of Hong Kong or which do not constitute an offer to the public within the meaning of the Companies Ordinance (Cap.32) of Hong Kong. No document, invitation or advertisement relating to the securities has been issued or may be issued or may be in the possession of any person for the purpose of issue (in each case whether in Hong Kong or elsewhere), which is directed at, or the contents of which are likely to be accessed or read by, the public of Hong Kong (except if permitted under the securities laws of Hong Kong) other than with respect to securities which are or are intended to be disposed of only to persons outside Hong Kong or only to “professional investors” as defined in the Securities and Futures Ordinance (Cap. 571) of Hong Kong and any rules made under that Ordinance.

This prospectus has not been registered with the Registrar of Companies in Hong Kong. Accordingly, this prospectus may not be issued, circulated or distributed in Hong Kong, and the securities may not be offered for subscription to members of the public in Hong Kong. Each person acquiring the securities will be required, and is deemed by the acquisition of the securities, to confirm that he is aware of the restriction on offers of the securities described in this prospectus and the relevant offering documents and that he is not acquiring, and has not been offered any securities in circumstances that contravene any such restrictions.

Japan

The offering has not been and will not be registered under the Financial Instruments and Exchange Law of Japan (Law No. 25 of 1948 of Japan, as amended), or FIEL, and the Initial Purchaser will not offer or sell any securities, directly or indirectly, in Japan or to, or for the benefit of, any resident of Japan (which term as used herein means, unless otherwise provided herein, any person resident in Japan, including any corporation or other entity organized under the laws of Japan), or to others for re-offering or resale, directly or indirectly, in Japan or to a resident of Japan, except pursuant to an exemption from the registration requirements of, and otherwise in compliance with, the FIEL and any other applicable laws, regulations and ministerial guidelines of Japan.

Singapore

This prospectus has not been and will not be lodged or registered with the Monetary Authority of Singapore. Accordingly, this prospectus and any other document or material in connection with the offer or sale, or the invitation for subscription or purchase of the securities may not be issued, circulated or distributed, nor may the securities be offered or sold, or be made the subject of an invitation for subscription or purchase, whether directly or indirectly, to the public or any member of the public in Singapore other than (i) to an institutional investor under Section 274 of the Securities and Futures Act, Chapter 289 of Singapore, or the SFA, (ii) to a relevant person as defined under Section 275(2), or any person pursuant to Section 275(1A) of the SFA, and in accordance with the conditions, specified in Section 275 of the SFA, or (iii) otherwise pursuant to, and in accordance with the conditions of any other applicable provision of the SFA.

Where the securities are subscribed or purchased under Section 275 of the SFA by a relevant person which is:

- a corporation (which is not an accredited investor as defined under Section 4A of the SFA) the sole business of which is to hold investments and the entire share capital of which is owned by one or more individuals, each of whom is an accredited investor; or
- a trust (where the trustee is not an accredited investor) whose sole purpose is to hold investments and each beneficiary is an accredited investor,

shares, debentures and units of shares and debentures of that corporation or the beneficiaries' rights and interest in that trust shall not be transferable for six months after that corporation or that trust has acquired the Offer Shares under Section 275 of the SFA except:

- to an institutional investor under Section 274 of the SFA or to a relevant person defined in Section 275(2) of the SFA, or to any person pursuant to an offer that is made on terms that such shares, debentures and units of shares and debentures of that corporation or such rights and interest in that trust are acquired at a consideration of not less than \$200,000 (or its equivalent in a foreign currency) for each transaction, whether such amount is to be paid for in cash or by exchange of securities or other assets, and further for corporations, in accordance with the conditions, specified in Section 275 of the SFA;
- where no consideration is given for the transfer; or
- where the transfer is by operation of law.

Switzerland

The securities described in this prospectus may not be publicly offered in Switzerland and will not be listed on the SIX Swiss Exchange, or SIX, or on any other stock exchange or regulated trading facility in Switzerland. This prospectus has been prepared without regard to the disclosure standards for issuance prospectuses under art. 652a or art. 1156 of the Swiss Code of Obligations or the disclosure standards for listing prospectuses under art. 27 ff. of the SIX Listing Rules or the listing rules of any other stock exchange or regulated trading facility in Switzerland. Neither this prospectus nor any other offering or marketing material relating to the securities or the offering may be publicly distributed or otherwise made publicly available in Switzerland.

Neither this prospectus nor any other offering or marketing material relating to the offering, the Company or the securities have been or will be filed with or approved by any Swiss regulatory authority. In particular, this prospectus will not be filed with, and the offer of securities will not be supervised by, the Swiss Financial Market Supervisory Authority FINMA, or FINMA, and the offer of securities has not been and will not be authorized under the Swiss Federal Act on Collective Investment Schemes, or CISA. The investor protection afforded to acquirers of interests in collective investment schemes under the CISA does not extend to acquirers of securities.

Israel

This document does not constitute a prospectus under the Israeli Securities Law, 5728-1968, or the Securities Law, and has not been filed with or approved by the Israel Securities Authority. In the State of Israel, this document is being distributed only to, and is directed only at, and any offer of our securities is directed only at, investors listed in the first addendum, or the Addendum, to the Israeli Securities Law, consisting primarily of joint investment in trust funds, provident funds, insurance companies, banks, portfolio managers, investment advisors, members of the Tel Aviv Stock Exchange, underwriters, venture capital funds, entities with equity in excess of NIS 50 million and "qualified individuals", each as defined in the Addendum (as it may be amended from time to time), collectively referred to as qualified investors (in each case purchasing for their own account or, where permitted under the Addendum, for the accounts of their clients who are investors listed in the Addendum). Qualified investors will be required to submit written confirmation that they fall within the scope of the Addendum, are aware of the meaning of same and agree to it.

United Kingdom

This prospectus is only being distributed to, and is only directed at, persons in the United Kingdom that are qualified investors (as defined in the Prospectus Directive) that are also (i) investment professionals falling within Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005, as amended, referred to herein as the “Order”, and/or (ii) high net worth entities falling within Article 49(2)(a) to (d) of the Order and other persons to whom it may lawfully be communicated or caused to be communicated. Each such person is referred to herein as a “Relevant Person”.

This prospectus and its contents are confidential and should not be distributed, published or reproduced (in whole or in part) or disclosed by recipients to any other persons in the United Kingdom. Any person in the United Kingdom that is not a Relevant Person should not act or rely on this document or any of its contents.

Any invitation or inducement to engage in investment activity (within the meaning of Section 21 of the Financial Services and Markets Act 2000 (the “FSMA”) may only be communicated or caused to be communicated in connection with the issue or sale of the securities in circumstances in which Section 21(1) of the FSMA does not apply. All applicable provisions of the FSMA must be complied with in respect of anything done by any person in relation to the securities in, from or otherwise involving the United Kingdom.

LEGAL MATTERS

The validity of the securities being offered by this prospectus will be passed upon by Snell & Wilmer L.L.P., Las Vegas, Nevada. The enforceability of the warrants being offered by this prospectus will be passed upon by Morrison & Foerster LLP, San Francisco, California. The underwriters are being represented in connection with this offering by Cooley LLP, New York, New York.

EXPERTS

Our consolidated balance sheets as of December 31, 2018 and 2017, and the related consolidated statements of operations and comprehensive loss, stockholders' equity and cash flows for each of the years in the three-year period ended December 31, 2018, have been audited by OUM & Co. LLP, independent registered public accounting firm, as stated in their report which is incorporated herein by reference. Such financial statements have been incorporated herein by reference in reliance on the report of such firm given upon their authority as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

We have filed with the SEC a registration statement on Form S-3 under the Securities Act, of which this prospectus supplement and the accompanying base prospectus form a part. The rules and regulations of the SEC allow us to omit from this prospectus supplement and the accompanying base prospectus certain information included in the registration statement. For further information about us and the securities we are offering under this prospectus supplement and the accompanying base prospectus, you should refer to the registration statement and the exhibits and schedules filed with the registration statement. With respect to the statements contained in this prospectus supplement and the accompanying base prospectus regarding the contents of any agreement or any other document, in each instance, the statement is qualified in all respects by the complete text of the agreement or document, a copy of which has been filed as an exhibit to the registration statement or an item incorporated by reference in the registration statement.

We file annual, quarterly and current reports, proxy statements and other information with the SEC under the Securities Exchange Act of 1934, as amended. The SEC 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 www.sec.gov.

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

INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE

The SEC allows us to “incorporate by reference” the information we file with the SEC, which means that we can disclose important information to you by referring you to those documents instead of having to repeat the information in this prospectus supplement and the accompanying base prospectus. The information incorporated by reference is considered to be part of this prospectus supplement and the accompanying base prospectus, and later information that we 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 until we sell all of the securities under this prospectus and the accompanying base prospectus, 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:

- [our Annual Report on Form 10-K for the fiscal year ended December 31, 2018, filed with the SEC on February 28, 2019;](#)
- the information contained in our definitive proxy statement on Schedule 14A for our 2019 annual meeting of stockholders, filed with the SEC on [April 30, 2019](#), to the extent incorporated by reference in Part III of our Annual Report on [Form 10-K](#) for the fiscal year ended December 31, 2018, filed with the SEC on February 28, 2019;
- [our Quarterly Report on Form 10-Q for quarterly period ended March 31, 2019, filed with the SEC on May 1, 2019;](#)
- our Current Reports on Form 8-K filed with the SEC on [January 8, 2019](#) (as amended by Amendment No. 1 thereto filed on [January 18, 2019](#)), [January 30, 2019](#), [March 11, 2019](#) and [May 6, 2019](#); and
- the description of our common stock contained in our Registration Statement on Form 8-A filed on [May 6, 2015](#) and [August 8, 2016](#), including any amendment or report filed for the purpose of updating such description.

We also incorporate by reference into this prospectus supplement and the accompanying base prospectus additional documents and information that we may file with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act, excluding, in each case, information deemed furnished and not filed, until we sell all of the securities we are offering. Any statements contained in a previously filed document incorporated by reference into this prospectus supplement and the accompanying base prospectus is deemed to be modified or superseded for purposes of this prospectus supplement and the accompanying base prospectus to the extent that a statement contained in this prospectus supplement or the accompanying base prospectus, or in a subsequently filed document also incorporated by reference herein or therein, modifies or supersedes that statement

We will provide to you at no cost a copy of any and all of the information incorporated by reference into the registration statement of which this prospectus is a part. You may make a request for copies of this information in writing or by telephone. Requests should be directed to:

Ekso Bionics Holdings, Inc.
1414 Harbour Way South, Suite 1201
Richmond, California 94804
Attn: Chief Financial Officer

PROSPECTUS

Ekso Bionics Holdings, Inc.

**\$75,000,000
COMMON STOCK
PREFERRED STOCK
WARRANTS
RIGHTS
UNITS**

Ekso Bionics Holdings, Inc., a Nevada corporation (“Ekso Bionics”), may offer and sell from time to time, pursuant to this prospectus, in one or more series or issuances and on terms that Ekso Bionics will determine at the time of the offering, any of the securities described in this prospectus, and any combination of those securities, up to an aggregate amount of \$75,000,000.

This prospectus describes the general terms of these securities and the general manner in which these securities will be offered. We will provide you with the specific terms of any offering in one or more supplements to this prospectus. The prospectus supplements will also describe the specific manner in which these securities will be offered and may also supplement, update or amend information contained in this document. You should read this prospectus and any prospectus supplement, as well as any documents incorporated by reference into this prospectus or any prospectus supplement, carefully before you invest.

We may offer and sell these securities directly to you, through agents designated from time to time, or to or through underwriters or dealers. For additional information on the methods of sale, you should refer to the section entitled “Plan of Distribution” in this prospectus and in the applicable prospectus supplement. If any underwriters or agents are involved in the sale of our securities with respect to which this prospectus is being delivered, the names of such underwriters or agents and any applicable fees, commissions or discounts and over-allotment options will be set forth in the applicable prospectus supplement. The price to the public of such securities and the net proceeds that we expect to receive from such sale will also be set forth in a prospectus supplement.

Our common stock is listed on the Nasdaq Capital Market under the symbol “EKSO.” On June 2, 2017, the last reported sale price of our common stock was \$1.37 per share. The applicable prospectus supplement will contain information, where applicable, as to any other listing, if any, on the Nasdaq Capital Market or any securities market or other securities exchange of the securities covered by the prospectus supplement. Prospective purchasers of our securities are urged to obtain current information as to the market prices of our securities, where applicable.

INVESTING IN OUR SECURITIES INVOLVES A HIGH DEGREE OF RISK. BEFORE DECIDING WHETHER TO INVEST IN OUR SECURITIES, YOU SHOULD CONSIDER CAREFULLY THE RISKS THAT WE HAVE DESCRIBED ON PAGE 3 OF THIS PROSPECTUS UNDER THE CAPTION “RISK FACTORS.” WE MAY INCLUDE SPECIFIC RISK FACTORS IN SUPPLEMENTS TO THIS PROSPECTUS UNDER THE CAPTION “RISK FACTORS.” THIS PROSPECTUS MAY NOT BE USED TO SELL OUR SECURITIES UNLESS ACCOMPANIED BY A PROSPECTUS SUPPLEMENT.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

The date of this prospectus is June 16, 2017.

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EXPLANATORY NOTE — STOCK SPLIT

Effective May 4, 2016, the Company effected a one-for-seven reverse split of its common stock. As a result of the reverse stock split, every seven shares of issued and outstanding common stock were converted into one share of issued and outstanding common stock. All references in this prospectus supplement to shares and net tangible book value per share have been retroactively restated to reflect the reverse stock split.

ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement on Form S-3 that we filed with the Securities and Exchange Commission, or SEC, using a “shelf” registration process. Under this shelf registration process, we may offer and sell, from time to time, shares of our common stock and preferred stock, various series of warrants or rights to purchase any of such securities, either individually or in units, in one or more offerings, with a total value of up to \$75,000,000. This prospectus provides you with a general description of the securities we may offer. Each time we offer a type or series of securities under this prospectus, we will provide a prospectus supplement that will contain specific information about the terms of that offering.

This prospectus does not contain all of the information included in the registration statement. For a more complete understanding of the offering of the securities, you should refer to the registration statement, including its exhibits. The prospectus supplement may also add, update or change information contained or incorporated by reference in this prospectus. However, no prospectus supplement will offer a security that is not registered and described in this prospectus at the time of its effectiveness. This prospectus, together with the applicable prospectus supplements and the documents incorporated into this prospectus, includes all material information relating to the offering of securities under this prospectus. You should carefully read this prospectus, the applicable prospectus supplement, the information and documents incorporated herein by reference and the additional information under the heading “Where You Can Find More Information” before making an investment decision.

You should rely only on the information we have provided or incorporated by reference in this prospectus or any prospectus supplement. We have not authorized anyone to provide you with information different from that contained or incorporated by reference in this prospectus. No dealer, salesperson or other person is authorized to give any information or to represent anything not contained or incorporated by reference in this prospectus. You must not rely on any unauthorized information or representation. This prospectus is an offer to sell only the securities offered hereby, but only under circumstances and in jurisdictions where it is lawful to do so. You should assume that the information in this prospectus or any prospectus supplement is accurate only as of the date on the front of the document and that any information we have incorporated herein by reference is accurate only as of the date of the document incorporated by reference, regardless of the time of delivery of this prospectus or any sale of a security.

We further note that the representations, warranties and covenants made by us in any agreement that is filed as an exhibit to any document that is incorporated by reference in the accompanying prospectus were made solely for the benefit of the parties to such agreement, including, in some cases, for the purpose of allocating risk among the parties to such agreements, and should not be deemed to be a representation, warranty or covenant to you. Moreover, such representations, warranties or covenants were accurate only as of the date when made. Accordingly, such representations, warranties and covenants should not be relied on as accurately representing the current state of our affairs.

This prospectus may not be used to consummate sales of our securities, unless it is accompanied by a prospectus supplement. To the extent there are inconsistencies between any prospectus supplement, this prospectus and any documents incorporated by reference, the document with the most recent date will control.

Unless the context otherwise requires, “Ekso Bionics,” “the Company,” “we,” “us,” “our” and similar terms refer to Ekso Bionics Holdings, Inc. and our subsidiaries.

PROSPECTUS SUMMARY

The following is a summary of what we believe to be the most important aspects of our business and the offering of our securities under this prospectus. We urge you to read this entire prospectus, including the more detailed consolidated financial statements, notes to the consolidated financial statements and other information incorporated by reference from our other filings with the SEC or included in any applicable prospectus supplement. Investing in our securities involves risks. Therefore, you should carefully consider the risk factors set forth in any prospectus supplements and in our most recent annual and quarterly filings with the SEC, as well as other information in this prospectus and any prospectus supplements and the documents incorporated by reference herein or therein, before purchasing our securities. Each of the risk factors could adversely affect our business, operating results and financial condition, as well as adversely affect the value of an investment in our securities.

Overview

Ekso Bionics designs, develops and sells exoskeletons that augment human strength, endurance, and mobility. Our exoskeleton technology serves multiple markets and can be used both by able-bodied users as well as by persons with physical disabilities. We have sold, rented or leased devices that (a) enable individuals with neurological conditions affecting gait (stroke and spinal cord injury) to rehabilitate and to walk again and (b) allow industrial workers to perform heavy duty work for extended periods.

Additional Information

For additional information related to our business and operations, please refer to the reports incorporated herein by reference, including our [Annual Report on Form 10-K for the year ended December 31, 2016](#), as described under the caption “Incorporation of Documents by Reference” on page [16](#) of this prospectus.

Corporate Information

We were incorporated under the laws of the State of Nevada in January 2012 under the name PN Med Group, Inc. and changed our name to Ekso Bionics Holdings, Inc. in December 2013. Ekso Bionics, Inc. was incorporated under the laws of the State of Delaware in January 19, 2005 and in January 2014 completed a reverse merger transaction with and became a wholly-owned subsidiary of Ekso Bionics Holdings, Inc. In connection with the reverse merger transaction and pursuant to a split-off agreement and general release, we transferred our pre-merger assets and liabilities to our pre-merger majority stockholders, in exchange for the surrender by them and cancellation of 2,497,586 shares of our common stock. As a result of the merger and split-off, we discontinued our pre-merger business and acquired the business of Ekso Bionics, and have continued the existing business operations of Ekso Bionics as a publicly-traded company under the name Ekso Bionics Holdings, Inc.

Our principal executive offices are located at 1414 Harbour Way South, Suite 1201, Richmond, California 94804 and our telephone number is (510) 984-1761.

We make available free of charge on or through our website our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and all amendments to those reports as soon as reasonably practicable after they are electronically filed with, or furnished to, the SEC. Our internet address is www.eksobionics.com. This website address is intended to be an inactive, textual reference only; none of the material on this website is part of this prospectus supplement. Copies of our annual reports on Form 10-K will be furnished without charge to any person who submits a written request directed to the attention of our Secretary, at our offices located at 1414 Harbour Way South, Suite 1201, Richmond, California, 94804. The SEC maintains an internet site (<http://www.sec.gov>) that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC.

Implications of Being an Emerging Growth Company

As a company with less than \$1.0 billion in revenue during our last fiscal year, we qualify as an “emerging growth company” as defined in the Jumpstart Our Business Startups, or JOBS, Act enacted in April 2012. An emerging growth company may take advantage of reduced reporting requirements that are otherwise applicable to public companies. These provisions include, but are not limited to:

- not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes Oxley Act of 2002;

- reduced disclosure obligations regarding executive compensation in our periodic reports, proxy statements and registration statements; and
- exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and stockholder approval of any golden parachute payments not previously approved.

We may take advantage of these provisions for up to five years after the first sale of our common equity securities pursuant to an effective registration statement under the Securities Act of 1933, as amended (the “Securities Act”). However, if certain events occur prior to the end of such five year period, including if we become a “large accelerated filer,” our annual gross revenues exceed \$1 billion or we issue more than \$1 billion of non-convertible debt in any three year period, we would cease to be an emerging growth company prior to the end of such five year period. We will cease being an emerging growth company as of December 31, 2017.

We may choose to take advantage of some but not all of these reduced burdens. We have taken advantage of certain of the reduced disclosure obligations regarding executive compensation in this registration statement and may elect to take advantage of other reduced burdens in future filings. As a result, the information that we provide to our stockholders may be different than you might receive from other public reporting companies in which you hold equity interests.

Under the JOBS Act, emerging growth companies can delay adopting new or revised accounting standards until such time as those standards apply to private companies. However, we have irrevocably elected not to avail ourselves of this extended transition period for complying with new or revised accounting standards and, therefore, we will be subject to the same new or revised accounting standards as other public companies that are not emerging growth companies.

Offerings Under This Prospectus

Under this prospectus, we may offer shares of our common stock and preferred stock, various series of warrants or rights to purchase any of such securities, either individually or in units, with a total value of up to \$75,000,000, from time to time at prices and on terms to be determined by market conditions at the time of the offering. This prospectus provides you with a general description of the securities we may offer. Each time we offer a type or series of securities under this prospectus, we will provide a prospectus supplement that will describe the specific amounts, prices and other important terms of the securities.

The prospectus supplement also may add, update or change information contained in this prospectus or in documents we have incorporated by reference into this prospectus. However, no prospectus supplement will fundamentally change the terms that are set forth in this prospectus or offer a security that is not registered and described in this prospectus at the time of its effectiveness.

We may sell the securities directly to investors or to or through agents, underwriters or dealers. We, and our agents, underwriters or dealers, reserve the right to accept or reject all or part of any proposed purchase of securities. If we offer securities through agents, underwriters or dealers, we will include in the applicable prospectus supplement:

- the names of those agents, underwriters or dealers;
- applicable fees, discounts and commissions to be paid to them;
- details regarding over-allotment options, if any; and
- the net proceeds to us.

This prospectus may not be used to consummate a sale of any securities unless it is accompanied by a prospectus supplement.

RISK FACTORS

Investing in our securities involves significant risk. The prospectus supplement applicable to each offering of our securities will contain a discussion of the risks applicable to an investment in Ekso Bionics. Prior to making a decision about investing in our securities, you should carefully consider the specific factors discussed under the heading “Risk Factors” in the applicable prospectus supplement, together with all of the other information contained or incorporated by reference in the prospectus supplement or appearing or incorporated by reference in this prospectus. You should also consider the risks, uncertainties and assumptions discussed under the heading “Risk Factors” included in our most recent [annual report on Form 10-K](#), as revised or supplemented by our subsequent [quarterly reports on Form 10-Q](#) or our [current reports on Form 8-K](#) on file with the SEC, all of which are incorporated herein by reference, and which may be amended, supplemented or superseded from time to time by other reports we file with the SEC in the future. The risks and uncertainties we have described are not the only ones we face. Additional risks and uncertainties not presently known to us or that we currently deem immaterial may also affect our operations. The occurrence of any of these risks might cause you to lose all or part of your investment in the offered securities.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

The SEC encourages companies to disclose forward-looking information so that investors can better understand a company’s future prospects and make informed investment decisions. This prospectus and the documents we have filed with the SEC that are incorporated herein by reference contain such “forward-looking statements” within the meaning of the Private Securities Litigation Reform Act of 1995.

Such statements in connection with any discussion of future operations or financial performance are identified by the use of words such as “may,” “anticipate,” “estimate,” “expect,” “project,” “intend,” “plan,” “believe,” and other words and terms of similar meaning. Forward-looking statements include, but are not limited to, statements regarding: (i) the plans and objectives of management for future operations, including plans or objectives relating to the design, development and commercialization of human exoskeletons, (ii) a projection of income (including income/loss), earnings (including earnings/loss) per share, capital expenditures, dividends, capital structure or other financial items, (iii) our future financial performance, including any such statement contained in a discussion and analysis of financial condition by management or in the results of operations included pursuant to the rules and regulations of the Securities and Exchange Commission (the “SEC”), (iv) our beliefs regarding the potential for commercial opportunity for exoskeleton technology in general and our exoskeleton products in particular, (v) our beliefs regarding potential clinical and other health benefits of our medical devices, and (vi) the assumptions underlying or relating to any statement described in points (i), (ii), (iii), (iv) or (v) above.

We may not actually achieve the plans, intentions or expectations disclosed in our forward-looking statements, and you should not place undue reliance on our forward-looking statements. Actual results or events could differ materially from the plans, intentions and expectations disclosed in the forward-looking statements we make. We have included important cautionary statements in this Registration Statement, particularly in the “Risk Factors” section, that we believe could cause actual results or events to differ materially from the forward-looking statements that we make. For a summary of such factors, please refer to the section entitled “Risk Factors” in this prospectus, as updated and supplemented by the discussion of risks and uncertainties under “Risk Factors” contained in any supplements to this prospectus and in our most recent annual report on Form 10-K, as revised or supplemented by our subsequent quarterly reports on Form 10-Q or our current reports on Form 8-K, as well as any amendments thereto, as filed with the SEC and which are incorporated herein by reference. The information contained in this document is believed to be current as of the date of this document. We do not intend to update any of the forward-looking statements after the date of this document to conform these statements to actual results or to changes in our expectations, except as required by law.

In light of these assumptions, risks and uncertainties, the results and events discussed in the forward-looking statements contained in this prospectus or in any document incorporated herein by reference might not occur. Investors are cautioned not to place undue reliance on the forward-looking statements, which speak only as of the date of this prospectus or the date of the document incorporated by reference in this prospectus. We are not under any obligation, and we expressly disclaim any obligation, to

update or alter any forward-looking statements, whether as a result of new information, future events or otherwise. All subsequent forward-looking statements attributable to us or to any person acting on our behalf are expressly qualified in their entirety by the cautionary statements contained or referred to in this section.

ABOUT EKSO BIONICS

Ekso Bionics designs, develops and sells exoskeleton technology to augment human strength, endurance and mobility. Our exoskeleton technology serves multiple markets and can be used both by able-bodied users as well as by persons with physical disabilities. We have sold, rented or leased devices that (a) enable individuals with neurological conditions affecting gait (stroke and spinal cord injury) to rehabilitate and to walk again and (b) allow industrial workers to perform heavy duty work for extended periods.

Today, our medical exoskeleton, Ekso GT, is used as a rehabilitation tool to allow physicians and therapists to rehabilitate patients who have suffered a stroke or spinal cord injury. With its unique features designed specifically for hospitals and its proprietary SmartAssist software, Ekso GT allows for the early mobilization of patients, with high step count and high dosage treatments. The intent is to allow the patient's central nervous system to take advantage of a person's neuroplasticity to maximize a patient's recovery.

For able-bodied industrial workers, last year we introduced a new product innovation for aerial work platforms (AWP) and scaffolding, the EksoZeroG, which is intended to significantly improve workforce productivity while dramatically reducing workplace related injuries in order to keep workers healthy, strong, and safe. EksoZeroG is a mobile arm mount that makes heavy tools feel weightless and enables workers to be more productive and safer. In 2017, we are focusing on increasing sales of the EksoZeroG by pursuing alternative channels such as rental agreements with construction equipment and heavy tool providers. In addition, we are exploring potential strategic alternatives to accelerate product and market adoption of our industrial products, on our own and/or in collaboration with others.

Ekso Bionics believes the commercial opportunity for exoskeleton technology adoption is accelerating as a result of recent advancements in material technologies, electronic and electrical engineering, control technologies, and sensor and software development. Taken individually, many of these advancements have become ubiquitous in peoples' everyday lives. We believe we have learned how to integrate these existing technologies and wrap the result around a human being efficiently, elegantly and safely, supported by an industry leading intellectual property portfolio. We further believe that we can do so across a broad spectrum of applications, from persons with lower limb paralysis to able-bodied users.

USE OF PROCEEDS

We cannot assure you that we will receive any proceeds in connection with securities which may be offered pursuant to this prospectus. Unless otherwise indicated in the applicable prospectus supplement, we intend to use any net proceeds from the sale of securities under this prospectus for our operations and to increase our investments (i) in our clinical, sales and marketing initiatives to accelerate adoption of the Ekso in the rehabilitation market, (ii) in our research, development and commercialization activities with respect to an Ekso robotic exoskeleton for home use, and/or (iii) in the development and commercialization of able-bodied exoskeletons for industrial use, and for other general corporate purposes, including, but not limited to, working capital, intellectual property protection and enforcement, capital expenditures, investments, acquisitions and collaborations. We have not determined the amounts we plan to spend on any of the areas listed above or the timing of these expenditures. As a result, our management will have broad discretion to allocate the net proceeds, if any, we receive in connection with securities offered pursuant to this prospectus for any purpose. Pending application of the net proceeds as described above, we may initially invest the net proceeds in short-term, investment-grade, or interest-bearing securities.

PLAN OF DISTRIBUTION

General Plan of Distribution

We may offer securities under this prospectus from time to time pursuant to underwritten public offerings, negotiated transactions, “at the market” sales, block trades or a combination of these methods. We may sell the securities:

- to or through underwriters or dealers;
- through agents;
- directly to one or more purchasers;
- through a combination of such methods; or
- through any other method described in a prospectus supplement.

The distribution of securities may be effected, from time to time, in one or more transactions, including:

- block transactions (which may involve crosses) and transactions on the Nasdaq Capital Market or any other organized market where the securities may be traded;
- purchases by a dealer as principal and resale by the dealer for its own account pursuant to a prospectus supplement;
- ordinary brokerage transactions and transactions in which a dealer solicits purchasers;
- sales “at the market” to or through a market maker or into an existing trading market, on an exchange or otherwise; and
- sales in other ways not involving market makers or established trading markets, including direct sales to purchasers.

We may distribute the securities from time to time in one or more transactions at:

- a fixed price or prices, which may be changed from time to time;
- market prices prevailing at the time of sale;
- prices related to the prevailing market prices; or
- negotiated prices.

We may directly solicit offers to purchase the securities being offered by this prospectus. We may also designate agents to solicit offers to purchase the securities from time to time. The prospectus supplement relating to a series of the offered securities will name any underwriters, dealers or agents involved in the offer or sale of the securities.

If we utilize a dealer in the sale of the securities being offered by this prospectus, we will sell the securities to the dealer, as principal. The dealer may then resell the securities to the public at varying prices to be determined by the dealer at the time of resale.

If we utilize an underwriter in the sale of the securities being offered by this prospectus, we will execute an underwriting agreement with the underwriter at the time of sale, and we will provide the name of any underwriter in the prospectus supplement which the underwriter will use to make resales of the securities to the public. In connection with the sale of the securities, we, or the purchasers of the securities for whom the underwriter may act as agent, may compensate the underwriter in the form of underwriting discounts or commissions. The underwriter may sell the securities to or through dealers, and the underwriter may compensate those dealers in the form of discounts, concessions or commissions.

With respect to underwritten public offerings, negotiated transactions and block trades, we will provide in the applicable prospectus supplement information regarding any compensation we pay to underwriters, dealers or agents in connection with the offering of the securities, and any discounts, concessions or commissions allowed by underwriters to participating dealers. Underwriters, dealers and agents

participating in the distribution of the securities may be deemed to be underwriters within the meaning of the Securities Act, and any discounts and commissions received by them and any profit realized by them on resale of the securities may be deemed to be underwriting discounts and commissions. We may enter into agreements to indemnify underwriters, dealers and agents against civil liabilities, including liabilities under the Securities Act, or to contribute to payments they may be required to make in respect thereof.

If so indicated in the applicable prospectus supplement, we will authorize underwriters, dealers or other persons acting as our agents to solicit offers by certain institutions to purchase securities from us pursuant to delayed delivery contracts providing for payment and delivery on the date stated in each applicable prospectus supplement. Each contract will be for an amount not less than, and the aggregate amount of securities sold pursuant to such contracts shall not be less nor more than, the respective amounts stated in each applicable prospectus supplement. Institutions with whom the contracts, when authorized, may be made include commercial and savings banks, insurance companies, pension funds, investment companies, educational and charitable institutions and other institutions, but shall in all cases be subject to our approval. Delayed delivery contracts will not be subject to any conditions except that:

- the purchase by an institution of the securities covered under that contract shall not at the time of delivery be prohibited under the laws of the jurisdiction to which that institution is subject; and
- if the securities are also being sold to underwriters acting as principals for their own account, the underwriters shall have purchased such securities not sold for delayed delivery. The underwriters and other persons acting as our agents will not have any responsibility in respect of the validity or performance of delayed delivery contracts.

One or more firms, referred to as “remarketing firms,” may also offer or sell the securities, if a prospectus supplement so indicates, in connection with a remarketing arrangement upon their purchase. Remarketing firms will act as principals for their own accounts or as our agents. These remarketing firms will offer or sell the securities in accordance with the terms of the securities. Each prospectus supplement will identify and describe any remarketing firm and the terms of its agreement, if any, with us and will describe the remarketing firm’s compensation. Remarketing firms may be deemed to be underwriters in connection with the securities they remarket. Remarketing firms may be entitled under agreements that may be entered into with us to indemnification by us against certain civil liabilities, including liabilities under the Securities Act, and may be customers of, engage in transactions with or perform services for us in the ordinary course of business.

Certain underwriters may use this prospectus and any accompanying prospectus supplement for offers and sales related to market-making transactions in the securities. These underwriters may act as principal or agent in these transactions, and the sales will be made at prices related to prevailing market prices at the time of sale. Any underwriters involved in the sale of the securities may qualify as “underwriters” within the meaning of Section 2(a)(11) of the Securities Act. In addition, the underwriters’ commissions, discounts or concessions may qualify as underwriters’ compensation under the Securities Act and the rules of the Financial Industry Regulatory Authority, Inc., or FINRA.

Shares of our common stock sold pursuant to the registration statement of which this prospectus is a part will be listed on the Nasdaq Capital Market. The applicable prospectus supplement will contain information, where applicable, as to any other listing, if any, on the Nasdaq Capital Market or any securities market or other securities exchange of the securities covered by the prospectus supplement. Underwriters may make a market in our common stock, but will not be obligated to do so and may discontinue any market making at any time without notice. We can make no assurance as to the liquidity of or the existence, development or maintenance of trading markets for any of the securities.

In order to facilitate the offering of the securities, certain persons participating in the offering may engage in transactions that stabilize, maintain or otherwise affect the price of the securities. This may include over-allotments or short sales of the securities, which involve the sale by persons participating in the offering of more securities than we sold to them. In these circumstances, these persons would cover such over-allotments or short positions by making purchases in the open market or by exercising their over-allotment option. In addition, these persons may stabilize or maintain the price of the securities by bidding for or purchasing the applicable security in the open market or by imposing penalty bids, whereby

selling concessions allowed to dealers participating in the offering may be reclaimed if the securities sold by them are repurchased in connection with stabilization transactions. The effect of these transactions may be to stabilize or maintain the market price of the securities at a level above that which might otherwise prevail in the open market. These transactions may be discontinued at any time.

The underwriters, dealers and agents may engage in other transactions with us, or perform other services for us, in the ordinary course of their business.

DESCRIPTION OF COMMON STOCK

We are authorized to issue 71,428,571 shares of common stock, par value \$0.001 per share. On May 25, 2017, we had 25,723,854 shares of common stock outstanding and approximately 255 stockholders of record.

The following summary of certain provisions of our common stock does not purport to be complete. You should refer to our articles of incorporation and our bylaws, both of which are included as exhibits to the registration statement of which this prospectus is a part. The summary below is also qualified by provisions of applicable law.

General

The holders of outstanding shares of common stock are entitled to receive dividends out of assets or funds legally available for the payment of dividends of such times and in such amounts as the board from time to time may determine. Holders of common stock are entitled to one vote for each share held on all matters submitted to a vote of stockholders. There is no cumulative voting of the election of directors then standing for election. The common stock is not entitled to pre-emptive rights and is not subject to conversion or redemption. Upon liquidation, dissolution or winding up of our company, the assets legally available for distribution to stockholders are distributable ratably among the holders of the common stock after payment of liquidation preferences, if any, on any outstanding payment of other claims of creditors. Each outstanding share of common stock is duly and validly issued, fully paid and non-assessable.

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is VStock Transfer, LLC. The transfer agent's address is 18 Lafayette Place, Woodmere, New York 11598 and its telephone number is (212) 828-8436.

Listing

Our common stock is listed on the Nasdaq Capital Market under the symbol "EKSO."

DESCRIPTION OF PREFERRED STOCK

We are authorized to issue 10,000,000 shares of preferred stock, par value \$0.001 per share, of which 15,000 shares were designated as Series A Convertible Preferred Stock. As of May 25, 2017, no shares of our preferred stock were outstanding. The following summary of certain provisions of our preferred stock does not purport to be complete. You should refer to our articles of incorporation and our bylaws, both of which are included as exhibits to the registration statement of which this prospectus is a part. The summary below is also qualified by provisions of applicable law.

General

Our board of directors may, without further action by our stockholders, from time to time, direct the issuance of shares of preferred stock in one or more series and may, at the time of issuance, determine the rights, preferences and limitations of each series, including voting rights, dividend rights and redemption and liquidation preferences. Satisfaction of any dividend preferences of outstanding shares of preferred stock would reduce the amount of funds available for the payment of dividends on shares of our common stock. Holders of shares of preferred stock may be entitled to receive a preference payment in the event of any liquidation, dissolution or winding-up of our company before any payment is made to the holders of shares of our common stock. In some circumstances, the issuance of shares of preferred stock may render more difficult or tend to discourage a merger, tender offer or proxy contest, the assumption of control by a holder of a large block of our securities or the removal of incumbent management. Upon the affirmative vote of our board of directors, without stockholder approval, we may issue shares of preferred stock with voting and conversion rights which could adversely affect the holders of shares of our common stock.

If we offer a specific series of preferred stock under this prospectus, we will describe the terms of the preferred stock in the prospectus supplement for such offering and will file a copy of the certificate establishing the terms of the preferred stock with the SEC. To the extent required, this description will include:

- the title and stated value;
- the number of shares offered, the liquidation preference, if any, per share and the purchase price;
- the dividend rate(s), period(s) and/or payment date(s), or method(s) of calculation for such dividends;
- whether dividends will be cumulative or non-cumulative and, if cumulative, the date from which dividends will accumulate;
- the procedures for any auction and remarketing, if any;
- the provisions for a sinking fund, if any;
- the provisions for redemption, if applicable;
- any listing of the preferred stock on any securities exchange or market;
- whether the preferred stock will be convertible into our common stock, and, if applicable, the conversion price (or how it will be calculated) and conversion period;
- whether the preferred stock will be exchangeable into debt securities, and, if applicable, the exchange price (or how it will be calculated) and exchange period;
- voting rights, if any, of the preferred stock;
- a discussion of any material and/or special U.S. federal income tax considerations applicable to the preferred stock;
- the relative ranking and preferences of the preferred stock as to dividend rights and rights upon liquidation, dissolution or winding up of the affairs of the Company; and
- any material limitations on issuance of any class or series of preferred stock ranking *pari passu* with or senior to the series of preferred stock as to dividend rights and rights upon liquidation, dissolution or winding up of the Company.

Series A Preferred Stock

In December 2014, our board of directors created out of the authorized and unissued shares of our preferred stock a series of preferred stock designated as the Series A Convertible Preferred Stock (the “Series A preferred stock”), comprising up to 15,000 shares of preferred stock. The material terms of the Series A preferred stock are described below.

Conversion; Beneficial Ownership Limitation. Subject to certain ownership limitations as described below, a holder of shares of Series A preferred stock may convert the Series A preferred stock into shares of our common stock at any time after the initial issuance date at a conversion ratio determined by dividing the stated value of the Series A preferred stock (or \$1,000) by the “Conversion Price.” The Conversion Price initially was \$1.01 per share, subject to adjustment as described below. On and after the close of business on the date of any such conversion, the holder converting such Series A preferred stock would be deemed to be the holder of record of the common stock issuable upon such conversion, such Series A preferred stock would cease to be outstanding, and all rights whatsoever with respect to such shares (except the right to receive the common stock) would terminate.

Subject to limited exceptions, a holder of shares of Series A preferred stock does not have the right to convert any portion of its Series A preferred stock if the holder, together with its affiliates, would beneficially own in excess of 4.99% of the number of shares of our common stock outstanding immediately after giving effect to its conversion (the “Beneficial Ownership Limitation”); provided, however, that upon 61 days’ prior notice to us, the holder may increase or decrease the Beneficial Ownership Limitation, provided that in no event shall the Beneficial Ownership Limitation exceed 9.99%.

Adjustments to Conversion Price. The conversion price is subject to adjustment in the case of stock splits, stock dividends, combinations of shares and similar recapitalization transactions. In addition, if we sell or grant any right to purchase or sell any common stock or common stock equivalents entitling any person to acquire shares of common stock (subject to exceptions for certain exempt issuances, including issuances pursuant to equity compensation plans, certain issuances to consultants, issuances in connection with exercise or exchange of common stock equivalents already outstanding and issuances pursuant to strategic transactions or to strategic investors) at an effective price per share that is lower than the then Conversion Price of the Series A preferred stock, then the Conversion Price would be further reduced to equal the effective price per share applicable to such sale. As a result of the one-for-seven reverse stock split completed on May 4, 2016 and the sale of common stock in an underwritten offering on August 9, 2016 at a price per share less than the Conversion Price then in effect, the conversion price of the Series A preferred stock is \$3.74 per share.

Voting Rights. Except as required by law, holders of the Series A preferred stock do not have rights to vote on any matters, questions or proceedings, including the election of directors. However, if any shares of Series A preferred stock are outstanding, we cannot, without the affirmative vote of the holders of 75% or more of the then outstanding shares of the Series A preferred stock, (1) alter or change adversely the powers, preferences or rights given to the Series A preferred stock or alter or amend the certificate of designation, (2) amend our articles of incorporation or other charter documents in any manner that adversely affects any rights of the holders of Series A preferred stock, (3) increase the number of authorized shares of Series A preferred stock, or (4) enter into any agreement with respect to any of the foregoing.

Dividends. Shares of Series A preferred stock are not be entitled to receive any dividends, unless and until specifically declared by our board of directors. The holders of the Series A preferred stock participate, on an as-if-converted-to-common stock basis, in any dividends to the holders of common stock.

Liquidation. In the event of either a voluntary or involuntary liquidation, dissolution or winding up of us, the assets of which constitute all or substantially all of the assets of our business, in a single transaction or series of transactions, the holders of Series A preferred stock would be entitled to participate, on an as-if-converted-to-common stock basis, in any distributions to the holders of common stock.

Exchange Listing. We do not plan on making an application to list the Series A preferred stock on any national securities exchange or other nationally recognized trading system.

Transfer Agent and Registrar

The transfer agent and registrar for our preferred stock will be set forth in the applicable prospectus supplement.

DESCRIPTION OF WARRANTS

General

As of May 25, 2017, warrants to purchase an aggregate of 5,091,910 shares of our common stock are issued and outstanding, of which warrants to purchase 88,368 shares of common stock have an exercise price of \$9.66 per share and expire on May 20, 2020 (the “Pre-Merger Warrants”), warrants to purchase 425,906 shares of common stock have an exercise price of \$7.00 per share and expire on January 15, 2019, warrants to purchase 1,077,816 shares of common stock have an exercise price of \$14.00 per share and expire on January 15, 2019, warrants to purchase 1,633,642 shares have an exercise price of \$3.74 and expire on December 28, 2020, and warrants to purchase 1,866,178 shares have an exercise price of \$4.10 and expire on October 6, 2022. The Pre-Merger Warrants may, at the option of the holders, be exercised on a cashless exercise basis, which means that in lieu of paying the aggregate exercise price for the shares being purchased upon exercise of the warrants for cash, the holder will forfeit a number of shares underlying the warrants with a fair market value (as defined in the warrant) equal to such aggregate exercise price. We will not receive additional proceeds to the extent these warrants are exercised on a cashless exercise basis.

We may issue warrants to purchase shares of our common stock and/or preferred stock in one or more series together with other securities or separately, as described in the applicable prospectus supplement. Below is a description of certain general terms and provisions of the warrants that we may offer. Particular terms of the warrants will be described in the warrant agreements and the prospectus supplement relating to the warrants.

The applicable prospectus supplement will contain, where applicable, the following terms of and other information relating to the warrants:

- the specific designation and aggregate number of, 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 designation, amount and terms of the securities purchasable upon exercise of the warrants;
- if applicable, the exercise price for shares of our common stock and the number of shares of common stock to be received upon exercise of the warrants;
- if applicable, the exercise price for shares of our preferred stock, the number of shares of preferred stock to be received upon exercise, and a description of that series of our preferred stock;
- the date on which the right to exercise the warrants will begin and the date on which that right will expire or, if you may not continuously exercise the warrants throughout that period, the specific date or dates on which you may exercise the warrants;
- 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, although, in any case, the form of a warrant included in a unit will correspond to the form of the unit and of any security included in that unit;
- any applicable material U.S. federal income tax consequences;
- the identity of the warrant agent for the warrants and of any other depositaries, execution or paying agents, transfer agents, registrars or other agents;
- the proposed listing, if any, of the warrants or any securities purchasable upon exercise of the warrants on any securities exchange;
- if applicable, the date from and after which the warrants and the common stock and/or preferred stock will be separately transferable;
- if applicable, the minimum or maximum amount of the warrants that may be exercised at any one time;
- information with respect to book-entry procedures, if any;
- the anti-dilution provisions of the warrants, if any;
- any redemption or call provisions;
- whether the warrants may be sold separately or with other securities as parts of units; and
- any additional terms of the warrants, including terms, procedures and limitations relating to the exchange and exercise of the warrants.

Transfer Agent and Registrar

The transfer agent and registrar for any warrants will be set forth in the applicable prospectus supplement.

DESCRIPTION OF RIGHTS

General

We may issue rights to our stockholders to purchase shares of our common stock, preferred stock or the other securities described in this prospectus. We may offer rights separately or together with one or more additional rights, preferred stock, common stock, or warrants, or any combination of those securities in the form of units, as described in the applicable prospectus supplement. Each series of rights will be issued under a separate rights agreement to be entered into between us and a bank or trust company, as rights agent. The rights agent will act solely as our agent in connection with the certificates relating to the rights of the series of certificates and will not assume any obligation or relationship of agency or trust for or with any holders of rights certificates or beneficial owners of rights. The following description sets forth certain general terms and provisions of the rights to which any prospectus supplement may relate. The particular terms of the rights to which any prospectus supplement may relate and the extent, if any, to which the general provisions may apply to the rights so offered will be described in the applicable prospectus supplement. To the extent that any particular terms of the rights, rights agreement or rights certificates described in a prospectus supplement differ from any of the terms described below, then the terms described below will be deemed to have been superseded by that prospectus supplement. We encourage you to read the applicable rights agreement and rights certificate for additional information before you decide whether to purchase any of our rights.

We will provide in a prospectus supplement the following terms of the rights being issued:

- the date of determining the stockholders entitled to the rights distribution;
- the aggregate number of shares of common stock, preferred stock or other securities purchasable upon exercise of the rights;
- the exercise price;
- the aggregate number of rights issued;
- whether the rights are transferrable and the date, if any, on and after which the rights may be separately transferred;
- the date on which the right to exercise the rights will commence, and the date on which the right to exercise the rights will expire;
- the method by which holders of rights will be entitled to exercise;
- the conditions to the completion of the offering, if any;
- the withdrawal, termination and cancellation rights, if any;
- whether there are any backstop or standby purchaser or purchasers and the terms of their commitment, if any;
- whether stockholders are entitled to oversubscription rights, if any;
- any applicable material U.S. federal income tax considerations; and
- any other terms of the rights, including terms, procedures and limitations relating to the distribution, exchange and exercise of the rights, as applicable.

Each right will entitle the holder of rights to purchase for cash the principal amount of shares of common stock, preferred stock or other securities at the exercise price provided in the applicable prospectus supplement. Rights may be exercised at any time up to the close of business on the expiration date for the rights provided in the applicable prospectus supplement.

Holders may exercise rights as described in the applicable prospectus supplement. Upon receipt of payment and the rights certificate properly completed and duly executed at the corporate trust office of the rights agent or any other office indicated in the prospectus supplement, we will, as soon as practicable, forward the shares of common stock, preferred stock or other securities, as applicable, purchasable upon

exercise of the rights. If less than all of the rights issued in any rights offering are exercised, we may offer any unsubscribed securities directly to persons other than stockholders, to or through agents, underwriters or dealers or through a combination of such methods, including pursuant to standby arrangements, as described in the applicable prospectus supplement.

Rights Agent

The rights agent for any rights we offer will be set forth in the applicable prospectus supplement.

DESCRIPTION OF UNITS

The following description, together with the additional information that we include in any applicable prospectus supplements, summarizes the material terms and provisions of the units that we may offer under this prospectus. While the terms we have summarized below will apply generally to any units that we may offer under this prospectus, we will describe the particular terms of any series of units in more detail in the applicable prospectus supplement. The terms of any units offered under a prospectus supplement may differ from the terms described below.

General

We may issue units consisting of common stock, preferred stock, one or more warrants or rights for the purchase of common stock or preferred stock in one or more series, in any combination. Each unit will be issued so that the holder of the unit is also the holder of each security included in the unit. Thus, the holder of a unit will have the rights and obligations of a holder of each security included in the unit. The unit agreement under which a unit is issued may provide that the securities included in the unit may not be held or transferred separately, at any time or at any time before a specified date.

We will describe in the applicable prospectus supplement the terms of the series of units being offered, including:

- the designation and terms of the units and of the securities comprising the units, including whether and under what circumstances those securities may be held or transferred separately;
- any provisions of the governing unit agreement that differ from those described below; and
- any provisions for the issuance, payment, settlement, transfer or exchange of the units or of the securities comprising the units.

The provisions described in this section, as well as those set forth in any prospectus supplement or as described under “Description of Common Stock,” “Description of Preferred Stock,” “Description of Warrants,” and “Description of Rights” will apply to each unit, as applicable, and to any common stock, preferred stock, warrant, or right included in each unit, as applicable.

Unit Agent

The name and address of the unit agent for any units we offer will be set forth in the applicable prospectus supplement.

Issuance in Series

We may issue units in such amounts and in such numerous distinct series as we determine.

Enforceability of Rights by Holders of Units

Each unit agent will act solely as our agent under the applicable unit agreement and will not assume any obligation or relationship of agency or trust with any holder of any unit. A single bank or trust company may act as unit agent for more than one series of units. A unit agent will have no duty or responsibility in case of any default by us under the applicable unit agreement or unit, including any duty or responsibility to initiate any proceedings at law or otherwise, or to make any demand upon us. Any holder of a unit may, without the consent of the related unit agent or the holder of any other unit, enforce by appropriate legal action its rights as holder under any security included in the unit.

CERTAIN PROVISIONS OF NEVADA LAW AND OF THE COMPANY’S ARTICLES OF INCORPORATION AND BYLAWS

Anti-Takeover Provisions

Nevada Law

We may in the future become subject to Nevada’s control share laws. A corporation is subject to Nevada’s control share law if it has more than 200 stockholders of record, at least 100 of whom are residents of Nevada, and if the corporation does business in Nevada, including through an affiliated corporation. This control share law may have the effect of discouraging corporate takeovers. The Company currently has fewer than 100 stockholders of record who are residents of Nevada.

The control share law focuses on the acquisition of a “controlling interest,” which means the ownership of outstanding voting shares that would be sufficient, but for the operation of the control share law, to enable the acquiring person to exercise the following proportions of the voting power of the corporation in the election of directors: (1) one-fifth or more but less than one-third; (2) one-third or more but less than a majority; or (3) a majority or more. The ability to exercise this voting power may be direct or indirect, as well as individual or in association with others.

The effect of the control share law is that an acquiring person, and those acting in association with that person, will obtain only such voting rights in the control shares as are conferred by a resolution of the stockholders of the corporation, approved at a special or annual meeting of stockholders. The control share law contemplates that voting rights will be considered only once by the other stockholders. Thus, there is no authority to take away voting rights from the control shares of an acquiring person once those rights have been approved. If the stockholders do not grant voting rights to the control shares acquired by an acquiring person, those shares do not become permanent non-voting shares. The acquiring person is free to sell the shares to others. If the buyer or buyers of those shares themselves do not acquire a controlling interest, the shares are not governed by the control share law any longer.

If control shares are accorded full voting rights and the acquiring person has acquired control shares with a majority or more of the voting power, a stockholder of record, other than the acquiring person, who did not vote in favor of approval of voting rights for the control shares, is entitled to demand fair value for such stockholder’s shares.

In addition to the control share law, Nevada has a business combination law, which prohibits certain business combinations between Nevada corporations and “interested stockholders” for two years after the interested stockholder first becomes an interested stockholder, unless (a) the corporation’s board of directors approves the combination in advance or (b) the corporation’s board of directors and at least 60% of the corporation’s disinterested stockholders approve the combination at an annual or special meeting. For purposes of Nevada law, an interested stockholder is any person who is: (a) the beneficial owner, directly or indirectly, of 10% or more of the voting power of the outstanding voting shares of the corporation, or (b) an affiliate or associate of the corporation and at any time within the previous two years was the beneficial owner, directly or indirectly, of 10% or more of the voting power of the then-outstanding shares of the corporation. The definition of “business combination” contained in the statute is sufficiently broad to cover virtually any kind of transaction that would allow a potential acquirer to use the corporation’s assets to finance the acquisition or otherwise to benefit its own interests rather than the interests of the corporation and its other stockholders.

The effect of Nevada’s business combination law is to potentially discourage a party interested in taking control of the Company from doing so if it cannot obtain the approval of our board of directors.

Authorized but Unissued Shares

The authorized but unissued shares of common stock and preferred stock are available for future issuance without stockholder approval, subject to any limitations imposed by the listing standards of any exchange on which our shares are listed. These additional shares may be used for a variety of corporate

finance transactions, acquisitions and employee benefit plans. The existence of authorized but unissued and unreserved common stock and preferred stock could make more difficult or discourage an attempt to obtain control of us by means of a proxy contest, tender offer, merger or otherwise.

Special Meeting of Stockholders; Advance Notice Requirements; Stockholder Action

Our by-laws provide that, except as otherwise required by law or the articles of incorporation, special meetings of the stockholders can only be called by our board of directors, by the chairman of our board of directors or by certain of our officers. In addition, our by-laws establish an advance notice procedure for stockholder proposals to be brought before an annual meeting of stockholders, including proposed nominations of candidates for election to our board of directors. Stockholders at an annual meeting may only consider proposals or nominations specified in the notice of the meeting or brought before the meeting by or at the direction of our board of directors, or by a stockholder of record on the record date for the meeting who is entitled to vote at the meeting and who has delivered timely written notice in proper form to our secretary of the stockholder's intention to bring such business before the meeting. These provisions could have the effect of delaying until the next stockholder meeting stockholder actions that are favored by the holders of a majority of our outstanding voting securities. In addition, our by-laws require that stockholder actions must be effected at a duly called stockholders meeting and prohibit actions by our stockholders by written consent.

Limitation of Liability and Indemnification

Nevada Revised Statutes (NRS) Sections 78.7502 and 78.751 provide us with the power to indemnify any of our directors, officers, employees and agents. The person entitled to indemnification must have conducted himself in good faith, and must reasonably believe that his conduct was in, or not opposed to, our best interests. In a criminal action, the director, officer, employee or agent must not have had reasonable cause to believe that his conduct was unlawful.

Under NRS Section 78.751, advances for expenses may be made by agreement if the director or officer affirms in writing that he has met the standards for indemnification and will personally repay the expenses if it is determined that such officer or director did not meet those standards.

Our by-laws state that we shall indemnify every (i) present or former director, officer, employee or agent of us and (ii) any person who served at our request as a director, officer, member, manager, partner, trustee, fiduciary, employee or agent of another corporation, limited liability company, partnership, joint venture, trust, employee benefit plan or other enterprise (each an "Indemnitee").

Our by-laws provide that we shall indemnify an Indemnitee against expenses, including attorneys' fees and disbursements, and costs (and in connection with a proceeding other than a proceeding by or in the right of the Company, judgments, fines and amounts paid in settlement) actually and reasonably incurred by such person in connection with any proceeding in which such Indemnitee was, is or is threatened to be named as defendant or respondent, or in which he was or is a witness without being named a defendant or respondent, by reason, in whole or in part, of his serving or having served, or having been nominated or designated to serve, if it is determined that the Indemnitee (a) conducted himself in good faith and in a manner which such Indemnitee reasonably believed to be in or not opposed to our best interests, or with respect to any criminal proceeding, had no reasonable cause to believe that his conduct was unlawful or (b) is not liable pursuant to NRS Section 78.138; provided, however, that in the event that an Indemnitee is found liable to us, we will have no obligation to indemnify such Indemnitee unless, and only to the extent that the court in which such action or suit was brought or other court of competent jurisdiction determines that, in view of all the circumstances of the case, such person is fairly and reasonably entitled to indemnity for such expenses and costs as a court of competent jurisdiction or such other court shall deem proper.

The termination of any proceeding by judgment, order, settlement or conviction, or on a plea of nolo contendere or its equivalent, is not of itself determinative that the Indemnitee did not meet the requirements set forth in clauses (a) or (b) above. An Indemnitee shall be deemed to have been found liable in respect of any claim, issue or matter only after the Indemnitee shall have been so adjudged by a court of competent jurisdiction after exhaustion of all appeals therefrom.

In addition to our by-laws, have entered into an Indemnification Agreement with each of our directors and executive officers pursuant to which we are required to indemnify, and to advance expenses on behalf of, such persons to the fullest extent permitted by applicable law and our governing documents. We believe that entering into these agreements helps us to attract and retain highly competent and qualified persons to serve the Company.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to our directors, officers and controlling persons, we have been advised that in the opinion of the SEC, such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable.

LEGAL MATTERS

Nutter, McClennen and Fish, LLP, Boston, Massachusetts, will pass upon the validity of the issuance of the securities to be offered by this prospectus.

EXPERTS

OUM & Co. LLP, independent registered public accounting firm, has audited our consolidated financial statements included in our [Annual Report on Form 10-K for the year ended December 31, 2016](#) as set forth in their report, which is incorporated by reference in this prospectus and elsewhere in the registration statement. Our financial statements are incorporated by reference in reliance on OUM & Co. LLP's report, given on their authority as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

We are subject to the reporting requirements of the Securities Exchange Act of 1934, as amended, and file annual, quarterly and current reports, proxy statements and other information with the SEC. You may read and copy these reports, proxy statements and other information at the SEC's public reference facilities 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 more information about the operation of the public reference facilities. SEC filings are also available at the SEC's web site at <http://www.sec.gov>.

We have filed with the SEC a registration statement under the Securities Act relating to the offering of these securities. The registration statement, including the attached exhibits, contains additional relevant information about us and the securities. This prospectus does not contain all of the information set forth in the registration statement. You can obtain a copy of the registration statement, at prescribed rates, from the SEC at the address listed above.

The registration statement and the documents referred to below under "Incorporation by Reference" are also available on our Internet website www.eksobionics.com. We have not incorporated by reference into this prospectus the information on our website, and you should not consider it to be a part of this prospectus.

INCORPORATION OF DOCUMENTS BY REFERENCE

The SEC allows us to incorporate by reference into this prospectus certain information we file with it, which means that we can disclose important information by referring you to those documents. The information incorporated by reference is considered to be a part of this prospectus, and information that we file later with the SEC will automatically update and supersede information contained in this prospectus and any accompanying prospectus supplement. We incorporate by reference the documents listed below that we have previously filed with the SEC (excluding any portions of any Form 8-K that are not deemed "filed" pursuant to the General Instructions of Form 8-K):

- [our Annual Report on Form 10-K for the fiscal year ended December 31, 2016 filed on March 15, 2017;](#)
- [the portions of our definitive proxy statement on Schedule 14A filed on April 28, 2017 that are deemed "filed" with the SEC under the Exchange Act;](#)

- [our Quarterly Report on Form 10-Q for the fiscal quarter ended March 31, 2017, filed on May 9, 2017;](#)
- our Current Reports on Form 8-K filed on [January 6, 2017](#), [March 23, 2017](#), [April 5, 2017](#), [April 26, 2017](#), and [May 23, 2017](#); and
- the description of our common stock contained in our Registration Statement on [Form 8-A, filed on May 6, 2015](#) pursuant to Section 12(b) of the Exchange Act, which incorporates by reference the description of the shares of our common stock contained in our Registration Statement on [Form S-1 \(File No. 333-195783\) filed on May 7, 2014](#) and declared effective by the SEC on June 20, 2014, and any amendment or report filed with the SEC for purposes of updating such description; and
- all reports and other documents subsequently filed by us pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act after the date of this prospectus and prior to the termination or completion of the offering of securities under this prospectus shall be deemed to be incorporated by reference in this prospectus and to be a part hereof from the date of filing such reports and other documents.

Any statement contained in this prospectus or in a document incorporated or deemed to be incorporated by reference into this prospectus will be deemed to be modified or superseded for purposes of this prospectus to the extent that a statement contained in this prospectus or any other subsequently filed document that is deemed to be incorporated by reference into this prospectus modifies or supersedes the statement. Any statement so modified or superseded will not be deemed, except as so modified or superseded, to constitute a part of this prospectus.

We will provide to each person, including any beneficial owner, to whom this prospectus is delivered, upon written or oral request, at no cost to the requester, a copy of any or all of the information that is incorporated by reference in this prospectus. Requests for such documents should be directed to: Investor Relations, Ekso Bionics Holdings, Inc., 1414 Harbour Way South, Suite 1201, Richmond, California 94804, (510) 984-1761.

You may also access the documents incorporated by reference in this prospectus through our website at www.eksobionics.com. Except for the specific incorporated documents listed above, no information available on or through our website shall be deemed to be incorporated in this prospectus or the registration statement of which it forms a part.

This prospectus may contain information that updates, modifies or is contrary to information in one or more of the documents incorporated by reference in this prospectus. You should rely only on the information incorporated by reference or provided in this prospectus. We have not authorized anyone else to provide you with different information. You should not assume that the information in this prospectus is accurate as of any date other than the date of this prospectus or the date of the documents incorporated by reference in this prospectus.



Shares of Common Stock
Warrants to Purchase Shares of Common Stock

PROSPECTUS SUPPLEMENT

Lead Book-Running Manager

Cantor

Joint-Book-Running Manager

SunTrust Robinson Humphrey

, 2019
