

PROSPECTUS SUPPLEMENT
(To Prospectus dated July 9, 2015)



**3,732,356 Shares of Common Stock
Warrants to Purchase 1,866,178 Shares of Common Stock**

We are offering up to 3,732,356 shares of our common stock and warrants to purchase 1,866,178 shares of our common stock (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 prospectus. The common stock and warrants will be sold in combination, with one warrant to purchase 0.5 shares of common stock for each share of common stock sold. The combined purchase price to investors for each share of common stock and accompanying warrant is \$3.14. The shares of common stock and warrants are immediately separable and will be issued separately.

Our common stock is listed on the Nasdaq Capital Market under the symbol "EKSO." The last reported sale price of our common stock on the Nasdaq Capital Market on March 31, 2017 was \$4.10 per share.

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 list the warrants on the Nasdaq Capital Market, any other national securities exchange or any other nationally recognized trading system.

We are an "emerging growth company" as defined under the federal securities laws, and, as such, are eligible for reduced public company reporting requirements. See "Prospectus Summary—Implications of Being an Emerging Growth Company."

Investing in our securities involves a high degree of risk. Please read "Risk Factors" beginning on page S-5 of this prospectus supplement and in the documents incorporated by reference into this prospectus supplement and the accompanying prospectus.

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

	Per Share and Accompanying Warrant		Total
Offering price	\$	3.14	\$ 11,719,598
Placement Agent Fees ⁽¹⁾	\$	0.204	\$ 761,774
Proceeds, before expenses, to us	\$	2.936	\$ 10,957,824

(1) We have also agreed to reimburse the expenses of the placement agent in an amount up to \$35,000. See "Plan of Distribution" for a description of the compensation payable to the placement agent.

B. Riley & Co., LLC has agreed to act as our exclusive placement agent in this offering. The placement agent may engage one or more sub-agents or selected dealers in connection with this offering. The placement agent is not purchasing any of the securities offered by us, and is not required to sell any specific number or dollar amount of securities, but will use its best efforts to sell the securities offered. We have agreed to pay the placement agent a placement fee equal to 6.5% of the aggregate gross proceeds to us from the sale of the common stock in the offering. We estimate total expenses of this offering payable by us, excluding placement agent fees and reimbursements, will be approximately \$107,750.

Delivery of the shares of common stock is expected to be made on or about April 6, 2017, subject to customary closing conditions.

B. Riley & Co.

The date of this prospectus supplement is April 4, 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 SUPPLEMENT

This document is in two parts. The first part is this prospectus supplement, which describes the terms of this offering and also adds to and updates information contained in the accompanying prospectus and the documents incorporated by reference into this prospectus supplement and the accompanying prospectus. The second part, the accompanying prospectus dated July 9, 2015, including the documents incorporated by reference therein, provides more general information, some of which may not apply to the securities offered by this prospectus supplement. Generally, when we refer to this prospectus, we are referring to both parts of this document combined. To the extent there is a conflict between the information contained in this prospectus supplement, on the one hand, and the information contained in the accompanying prospectus or in any document incorporated by reference that was filed with the Securities and Exchange Commission (the “SEC”) before the date of this prospectus supplement, on the other hand, you should rely on the information in this prospectus supplement. If any statement in one of these documents is inconsistent with a statement in another document having a later date—for example, a document incorporated by reference in the accompanying prospectus—the statement in the document having the later date modifies or supersedes the earlier statement unless otherwise specified. You should assume that the information contained in this prospectus supplement is accurate as of the date on the front cover of this prospectus supplement only and that any information we have incorporated by reference or included in the accompanying prospectus is accurate only as of the date given in the document incorporated by reference or as of the date of the prospectus, as applicable, regardless of the time of delivery of this prospectus supplement or the accompanying prospectus or any sale of our securities. Our business, financial condition, results of operations and prospects may have changed since that date.

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 or 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 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 this prospectus supplement or the accompanying prospectus, or incorporated by reference herein. We have not authorized, and the placement agent has not authorized, anyone to provide you with information that is different. The information contained in this prospectus supplement or the accompanying prospectus, or incorporated by reference herein is accurate only as of the respective dates thereof, regardless of the time of delivery of this prospectus supplement and the accompanying prospectus or of any sale of our securities. It is important for you to read and consider all information contained in this prospectus supplement and the accompanying prospectus, including the documents incorporated by reference herein, in making your investment decision. You should also read and consider the information in the documents to which we have referred you in the sections entitled “Where You Can Find More Information” and “Incorporation of Documents by Reference” in this prospectus supplement and in the accompanying prospectus.

We are offering to sell, and seeking offers to buy, our securities only in jurisdictions where offers and sales are permitted. The distribution of this prospectus supplement and the accompanying prospectus and the offering of the securities in certain jurisdictions may be restricted by law. Persons outside the United States who come into possession of this prospectus supplement and the accompanying prospectus must inform themselves about, and observe any restrictions relating to, the offering and the distribution of this prospectus supplement and the accompanying prospectus outside the United States. This prospectus supplement and the accompanying 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 the accompanying prospectus by any person in any jurisdiction in which it is unlawful for such person to make such an offer or solicitation.

Unless the context requires otherwise, all references in this prospectus supplement and the accompanying prospectus to “Ekso,” “the Company,” “we,” “us,” “our,” or similar references refer to Ekso Bionics Holdings, Inc. and its subsidiaries.

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus supplement, the accompanying prospectus and the documents incorporated by reference, include forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995.

These forward-looking statements include all statements other than statements of historical facts contained or incorporated by reference in this prospectus supplement and the accompanying prospectus, including 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 SEC, (iv) our beliefs regarding the potential 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. Terms such as “may,” “might,” “would,” “should,” “could,” “project,” “estimate,” “pro-forma,” “predict,” “potential,” “strategy,” “anticipate,” “attempt,” “develop,” “plan,” “help,” “believe,” “continue,” “intend,” “expect,” “future,” and terms of similar import (including the negative of any of the foregoing) may be intended to identify forward-looking statements. However, not all forward-looking statements may contain one or more of these identifying terms.

The forward-looking statements are not meant to predict or guarantee actual results, performance, events or circumstances and may not be realized because they are based upon our current projections, plans, objectives, beliefs, expectations, estimates and assumptions and are subject to a number of risks and uncertainties and other influences, many of which we have no control over. Actual results and the timing of certain events and circumstances may differ materially from those described by the forward-looking statements as a result of these risks and uncertainties. Factors that may influence or contribute to the inaccuracy of the forward-looking statements or cause actual results to differ materially from expected or desired results may include, without limitation, our inability to obtain adequate financing, the significant length of time and resources associated with the development of our products and related insufficient cash flows and resulting illiquidity, our inability to expand our business, significant government regulation of medical devices and the healthcare industry, the results of clinical studies or trials, lack of product diversification, volatility in the price of our raw materials, existing or increased competition, results of arbitration and litigation, stock volatility and illiquidity, and our failure to implement our business plans or strategies; and other risks, uncertainties and assumptions included in our periodic reports and in other documents that we file with the SEC, including those described in the section of this prospectus supplement captioned “Risk Factors” beginning on Page S-6.

Investors are cautioned not to place undue reliance on the forward-looking statements, which speak only as of the date of this prospectus supplement or the date of the document incorporated by reference in this prospectus supplement and the accompanying prospectus. We are not under any obligation, and we expressly disclaim any obligation, to update any forward-looking statements, whether as a result of new information, future events or otherwise.

Although we undertake no obligation to revise or update any forward-looking statements, except as required by law, you are advised to consult any additional disclosures we make in our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, and Current Reports on Form 8-K filed with the SEC. See “Where You Can Find More Information.”

PROSPECTUS SUPPLEMENT 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 supplement. We urge you to read this entire prospectus supplement, the accompanying prospectus and any free writing prospectus that we have authorized for use in connection with this offering, 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 common stock involves risks. Therefore, you should carefully consider the risk factors set forth in this prospectus supplements and in our most recent annual and quarterly filings with the SEC 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

We design, develop and sell exoskeleton technology that has applications in healthcare and industrial markets. Our wearable exoskeletons are worn over clothing and are mechanically controlled by a trained operator 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.

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 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 we can do so across a broad spectrum of applications, from persons with lower limb paralysis to able-bodied users.

While we believe advancements in technology will continue driving commercial interest in and further development of exoskeleton systems, we also recognize that we are in the early stages of development of exoskeleton capabilities. In order to advance the commercialization of our exoskeleton technology, we intend to focus our efforts in 2017 on the following key initiatives:

- Drive robotic exoskeleton rehabilitation to become the standard of care for both in-patient and out-patient rehabilitation for patients with some form of lower limb paralysis or weakness, with an enhanced focus on sales and marketing commercial execution in North America and Europe through the implementation of new processes, strategies, and results-orientation.
- Introduce new features in rehabilitation for our Ekso GT, such as SmartAssist Software, which could expand access to care to more patients, and EksoPulse Analytics, which aids in providing more personalized care in rehabilitation sessions.
- Continue patient enrollment in our company-sponsored clinical trial Walking Improvement for SCI with Exoskeletons Study ("WISE").
- Continue leveraging our experience with the Ekso GT and our exoskeleton research and development work to develop our next generation medical device for use outside of a rehabilitation setting. We are striving to produce a device that will have greater functionality and levels of independence than any exoskeleton currently on the market.
- Build upon our momentum in industrial markets with an enhanced focus on commercial rollout of EksoZeroG for aerial work platforms and scaffolding to reduce work-related injuries, as well as introduce our next generation innovation for improving overhead work. We are also exploring potential strategic alternatives to accelerate product and market adoption of our industrial products, on our own and/or in collaboration with others.

Corporate Information

We were incorporated as PN Med Group Inc. in Nevada on January 30, 2012. Prior to the Merger and Split-Off (each as defined below), our business was to distribute medical supplies and equipment in Chile.

On January 15, 2014, our wholly-owned subsidiary, Ekso Acquisition Corp., a corporation formed in the State of Delaware on January 3, 2014 merged with and into Ekso Bionics, Inc., a corporation incorporated in the State of Delaware on January 19, 2005 (the "Merger"). Ekso Bionics was the surviving corporation in the Merger and became our wholly-owned subsidiary. All of the outstanding Ekso Bionics stock was converted into shares of our common stock.

In connection with the Merger 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 (the “Split-Off”), after adjusting to effect to the 1-for-7 reverse stock split.

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 office is located at 1414 Harbour Way South, Suite 1201, Richmond, California, 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

We are an “emerging growth company,” as defined in the JOBS Act enacted in April 2012. For as long as we continue to be an emerging growth company, we may choose to take advantage of exemptions from various public company reporting requirements. These exemptions include, but are not limited to, (a) not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act, (b) reduced disclosure obligations regarding executive compensation in our periodic reports, proxy statements and registration statements, and (c) 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 could be an emerging growth company 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 have taken advantage of certain of the reduced disclosure obligations regarding executive compensation in the filings we have made with the SEC 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 information received from other public reporting companies. We cannot predict if investors will find our common stock less attractive as a result of our reliance on these exemptions. If some investors find our common stock less attractive as a result of any choice we make to reduce disclosure, there may be a less active trading market for our common stock and our stock price may be more volatile.

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.

THE OFFERING

Common Stock Offered by Us	3,732,356 shares
Warrants Offered by Us	Warrants to purchase 1,866,178 shares of common stock at an exercise price of \$4.10 per whole share. The warrants will be exercisable beginning six months following the issuance date and will expire on the five-year anniversary of the date on which the warrants are first exercisable. See “Description of The Securities We Are Offering — Warrants” on page S-10 of this prospectus supplement. This prospectus supplement also relates to the offering of the shares of common stock issuable upon exercise of the warrants.
Offering price per Share and Accompanying Warrant	\$3.14
Common Stock to be Outstanding After This Offering	25,626,763 shares (assuming none of the warrants issued in this offering are exercised)
Use of Proceeds	We intend to use the net proceeds from this offering for our operations, including, but not limited to, ongoing 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 working capital and other general corporate purposes. See “Use of Proceeds” on page S-7 of this prospectus supplement.
Risk Factors	Investing in our common stock involves a high degree of risk. You should carefully consider the “Risk Factors” incorporated by reference in this prospectus supplement and the accompanying prospectus, including the risk factors incorporated by reference from our filings with the SEC, before deciding to invest in our common stock.
Leak-Out Agreement	Each investor in the offering will enter into a separate leak-out agreement with us pursuant to which such investor will agree to certain limits on sales of the shares of Common Stock purchased in this offering, including the shares of Common Stock issuable upon exercise of the warrants in this offering.
NASDAQ Capital Markets Symbol	EKSO

The number of shares of our common stock to be outstanding after this offering is based on 21,894,407 shares outstanding as of December 31, 2016. Unless specifically stated otherwise, the information in this prospectus supplement excludes as of December 31, 2016:

- 3,597,175 shares of our common stock issuable upon the exercise of warrants outstanding as of December 31, 2016, at a weighted average exercise price of \$7.68 per share;
- 2,476,717 shares of our common stock issuable upon the exercise of stock options outstanding as of December 31, 2016 under our 2014 Equity Incentive Plan, which we refer to as our 2014 Plan, at a weighted average exercise price of \$6.50 per share;
- 948,892 shares of our common stock available for future issuance as of December 31, 2016 under our 2014 Plan; and
- up to 285,717 shares of our common stock that may be issued to Equipois, LLC (“Equipois”) pursuant to the asset purchase agreement entered into in connection with our acquisition of certain technologies of Equipois.

SELECTED CONSOLIDATED FINANCIAL DATA

The following table sets forth certain financial data with respect to our business. We derived the consolidated statement of operations data for the years ended December 31, 2016, 2015, 2014 and 2013 from our audited consolidated financial statements. Our audited consolidated financial statements for the years ended December 31, 2016 and 2015 are incorporated by reference in this prospectus supplement from our Annual Report on Form 10-K for the year ended December 31, 2016. You should read this data together with our audited consolidated financial statements and related notes and the information under the captions “Selected Consolidated Financial Data” and “Management’s Discussion and Analysis of Financial Condition and Results of Operations,” which are included in our Annual Report on Form 10-K for the year ended December 31, 2016 and incorporated by reference in this prospectus supplement. For more details on how you can obtain the documents incorporated by reference in this prospectus supplement, “Where You Can Find More Information” and “Incorporation of Documents by Reference” appearing elsewhere in this prospectus supplement. Our historical results are not necessarily indicative of future results.

	Year ended December 31,				
	2016	2015	2014	2013	2012
Statement of Operations Data:					
Revenues	\$ 14,221	\$ 8,661	\$ 5,327	\$ 3,302	\$ 2,706
Loss from operations	(27,586)	(21,561)	(16,794)	(10,294)	(14,241)
Gain (loss) on warrant liability (1)(2)	4,286	2,505	(16,485)	186	17
Net loss	(23,470)	(19,590)	(33,769)	(11,887)	(15,042)
Preferred deemed dividend(1)	(10,345)	4,655	–	–	–
Net loss per share, basic	\$ (1.87)	\$ (0.24)	\$ (0.43)	(0.57)	\$ (5.22)
Balance Sheet Data:					
Cash	\$ 16,846	\$ 19,552	\$ 25,190	\$ 805	\$ 1,738
Total assets	24,425	32,198	33,474	6,584	6,210
Note payable, net	6,789	–	118	2,506	4,166
Warrant liability	\$ 3,546	\$ 9,195	\$ –	\$ 378	\$ 564

- (1) On December 23, 2015, the Company entered into an agreement to sell 15,000 shares of Series A Convertible Preferred Stock (the “Preferred Shares”) and warrants to purchase 2,122 shares of the Company’s common stock for cash of \$13.7 million, net of issuance cost, of which \$0.2 million was paid in 2016. Because the Preferred Shares were in-the-money on the date of issuance, the Company recognized a beneficial conversion feature of \$3.3 million that was recorded as a non-cash preferred deemed dividend. In December 2015, 1,737 of the Preferred Shares were converted into 245,715 shares of common stock resulting in an additional \$1.4 million non-cash preferred deemed dividend that related to the accretion of the discount associated with the warrants and stock issuance costs. Total preferred deemed dividends for the year ended December 31, 2015, were \$4.7 million. The warrants issued in the transaction were initially valued at \$11.7 million and recorded as a warrant liability. Due to a decrease in our per share stock price from the transaction date to December 31, 2015, the warrant liability was reduced by \$2.5 million, resulting in a non-cash gain for the period.

The net loss recorded in 2016 of \$23.5 million included a non-cash gain of \$4.3 million associated with the issuance of warrants in December 2015 that included an anti-dilution provision and a put option. During the year ended December 31, 2016, 13,263 Preferred Shares were converted into 2,309,531 shares of common stock resulting in a \$10.3 million non-cash preferred deemed dividend.

- (2) The net loss recorded in 2014 of \$33.8 million included a non-cash charge of \$16.5 million associated with the issuance of warrants in conjunction with our Merger and subsequent private placement offering that included an anti-dilution provision. The warrants were amended in November 2014 by a majority of common stock warrant holders to remove the anti-dilution provision. In conjunction with the amendment, warrant holders exercised 3,268,643 warrant shares for which the Company received net proceeds of \$21.4 million.

RISK FACTORS

Our business is subject to significant risks. Before you invest in our common stock, you should carefully consider, among other matters, the risks and uncertainties described below, as well as the other information contained or incorporated by reference in this prospectus supplement and the accompanying prospectus, including our consolidated financial statements and accompanying notes and the information under the heading “Risk Factors” in our most recent annual report on Form 10-K and quarterly reports on Form 10-Q. See “Information Incorporated by Reference.” If any of the risks and uncertainties described in this prospectus supplement or the accompanying prospectus or the documents incorporated by reference herein actually occur, our business, financial condition, or results of operations could be adversely affected in a material way. This could cause the trading price of our common stock to decline, perhaps significantly, and you may lose part or all of your investment. Only those investors who can bear the risk of loss of their entire investment should invest in our common stock. Please note that additional risks not currently known to us or that we currently deem immaterial also may adversely affect our business, operations results of operations, financial condition and prospects.

Risks Related to This Offering

You could lose all of your investment.

An investment in our common stock is speculative and involves a high degree of risk. Potential investors should be aware that the value of an investment in us may go down as well as up. In addition, there can be no certainty that the market value of an investment in us will fully reflect its underlying value. You could lose your entire investment.

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

There is no established public trading market for the warrants being offered in this offering, 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. Without an active market, the liquidity of the warrants will be limited.

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

If our common stock price does not increase to an amount sufficiently above the applicable 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 the market price of the common stock will ever equal or exceed the exercise price of the warrants, and consequently, whether it will ever be profitable for holders of the warrants to exercise the warrants.

Holders of the warrants will have no 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 rights with respect to our common stock issuable upon exercise of the warrants, including the right to receive dividend payments, vote or respond to tender offers. Upon exercise of your warrants, you will be entitled to exercise the rights of a common stockholder only as to matters for which the record date occurs after the exercise date.

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

We currently intend to use the net proceeds from this offering for our operations, including, but not limited to ongoing 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. We have not allocated specific amounts of the net proceeds from this offering for any of the foregoing purposes. Accordingly, our management will have broad discretion in the application of the net proceeds from this offering and could spend the proceeds in ways that do not improve our results of operations or enhance the value of our common stock. You will be relying on the judgment of our management with regard to the use of these net proceeds, and you will not have the opportunity, as part of your investment decision, to assess whether the net proceeds are being used appropriately. It is possible that the net proceeds will be invested in a way that does not yield a favorable, or any, return for us. Our failure to apply these funds effectively could have a material adverse effect on our business and cause the price of our common stock to decline.

If you purchase our common stock in this offering, you will incur immediate and substantial dilution in the book value of your shares.

The public offering price of our common stock is higher than the net tangible book value per share of our common stock. Therefore, if you purchase shares of our common stock in this offering, you will pay a price per share that substantially exceeds our net tangible book value per share after this offering. See “Dilution” for a more detailed description of the dilution to new investors in the offering.

Sales of a significant number of shares of our common stock in the public markets, or the perception that such sales could occur, could depress the market price of our common stock.

The operation of our business and our growth efforts will require significant cash outlays and advance capital equipment expenditures and commitments. We have been largely dependent on capital raised through the sale of equity securities in various public and private offerings, and going forward will be largely dependent on capital raised in any future offerings, to implement our business plan and support our operations. We cannot predict the size of any future equity offerings or the effect, if any, that future sales and issuances of shares of our common stock will have on the market price of our common stock. Sales of substantial amounts of our common stock (including shares issued upon the exercise of stock options and warrants), or the perception that such sales could occur, may adversely affect prevailing market prices for our common stock. In addition, these sales may be dilutive to existing stockholders.

The risks above do not necessarily comprise all of those associated with an investment in us. This prospectus contains forward looking statements that involve unknown risks, uncertainties and other factors that may cause our actual results, financial condition, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by such forward looking statements. Factors that might cause such a difference include, but are not limited to, those set out above.

USE OF PROCEEDS

We estimate the net proceeds to us from the sale of the securities offered hereby, after deducting estimated placement agent fees and our other estimated offering expenses, will be approximately \$10.9 million, if we sell the maximum amount of common stock and warrants offered hereby. However, this is a best efforts offering with no minimum, and we may not sell all or any of the securities offered hereby; as a result, we may receive significantly less in net proceeds, and the net proceeds received may not be sufficient to continue to operate our business. The information above does not give effect to the potential exercise of the warrants offered hereby.

We intend to use the net proceeds from this offering for our operations, including, but not limited to, ongoing 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 working capital and other general corporate purposes. The occurrence of unforeseen events or changed business conditions, however, could result in the application of the net proceeds from this offering in a manner other than as described in this prospectus supplement. As a result, our management will retain broad discretion over the allocation of the net proceeds from this offering.

Pending our use of the net proceeds from this offering, we plan to invest the net proceeds in short-term, investment-grade, interest-bearing instruments and U.S. government securities.

CAPITALIZATION

The following table sets forth our capitalization as of December 31, 2016 on an actual basis and as adjusted to reflect the assumed sale of 3,732,356 shares of common stock and warrants to purchase 1,866,178 shares of common stock offered by us in this offering at a public offering price of \$3.14 per share and accompanying warrant, before deducting placement agent fees and estimated offering expenses payable by us.

(In thousands, except share and per share information)	As of December 31, 2016	
	Actual	As adjusted for this offering
Cash and cash equivalents	\$ 16,846	\$ 28,566
Stockholders' Equity		
Common stock, \$0.001 par value; 71,429 shares authorized; 21,894 shares issued and outstanding at December 31, 2016	22	26
Additional paid-in capital	121,291	133,007
Accumulated other comprehensive income (loss)	79	79
Accumulated deficit	(114,861)	(114,861)
Total stockholders' equity	6,531	18,251
Total capitalization	\$ 6,531	18,251

- (1) The above discussion and table exclude the shares of common stock issuable upon exercise of the warrants offered by us in this offering and also excludes the following as of December 31, 2016:
- 3,597,175 shares of our common stock issuable upon the exercise of warrants outstanding as of December 31, 2016, at a weighted average exercise price of \$7.68 per share;
 - 2,476,717 shares of our common stock issuable upon the exercise of stock options outstanding as of December 31, 2016 under our 2014 Plan at a weighted average exercise price of \$6.50 per share;
 - 948,892 shares of our common stock available for future issuance as of December 31, 2016 under our 2014 Plan;
 - up to 285,717 shares of our common stock that may be issued to Equipois pursuant to the asset purchase agreement entered into in connection with our acquisition of certain technologies of Equipois; and
 - any shares that we may issue in the future pursuant to the registration statement of which this prospectus supplement forms a part.

For a discussion of our stock option and employee benefit plans and the common stock issuance to Equipois, see the Notes to our consolidated financial statements for the year ended December 31, 2016, which are incorporated by reference in this prospectus supplement.

Please read the capitalization table together with the sections of this prospectus supplement entitled "Selected Financial Information" and "Management's Discussion and Analysis of Financial Condition and Results of Operations," and our financial statements and related notes thereto which are incorporated by reference in this prospectus supplement.

DILUTION

Our net tangible book value at December 31, 2016 was \$5.3 million, or \$0.24 per share. We calculate net tangible book value per share by subtracting our total liabilities from our total tangible assets and dividing the difference by the number of outstanding shares of our common stock. Dilution with respect to net tangible book value per share represents the difference between the amount per share paid by purchasers of shares of common stock (excluding shares of common stock issuable upon exercise of the warrants being offered by us in this offering) and accompanying warrants in this offering and the net tangible book value per share of our common stock immediately after this offering.

After giving effect to the assumed sale of 3,732,356 shares of common stock and accompanying warrants in this offering at an offering price of \$3.14 per share and accompanying warrant, and after deducting the placement agent fees and estimated offering expenses payable by us, and excluding the proceeds, if any, from the exercise of the warrants issued pursuant to this offering, our as adjusted net tangible book value at December 31, 2016 would have been \$16.2 million, or \$0.63 per share of common stock. This represents an immediate increase in net tangible book value of \$0.39 per share to existing stockholders and an immediate dilution of \$2.51 per share to investors in this offering. The following table illustrates this per share dilution:

Combined public offering price per share of common stock and warrant		\$	3.14
Net tangible book value per share as of December 31, 2016	\$	0.24	
Increase per share attributable to net proceeds of this offering	\$	0.39	
Net tangible book value per share as of December 31, 2016 after giving effect to this offering	\$	0.63	
Dilution per share to new investors participating in this offering	\$	2.51	

The above discussion is based on 21,894,407 shares of our common stock outstanding as of December 31, 2016 and excludes the shares of common stock issuable upon exercise of the warrants offering by us in this offering and also excludes:

- 3,597,175 shares of our common stock issuable upon the exercise of warrants outstanding as of December 31, 2016, at a weighted average exercise price of \$7.68 per share;
- 2,476,717 shares of our common stock issuable upon the exercise of stock options outstanding as of December 31, 2016 under our 2014 Plan at a weighted average exercise price of \$6.50 per share;
- 948,892 shares of our common stock available for future issuance as of December 31, 2016 under our 2014 Plan;
- up to 285,717 shares of our common stock that may be issued to Equipois pursuant to the asset purchase agreement entered into in connection with our acquisition of certain technologies of Equipois; and
- any shares that we may issue in the future pursuant to the registration statement of which this prospectus supplement forms a part.

To the extent that outstanding options or warrants outstanding as of December 31, 2016 have been or may be exercised, preferred stock is converted into common stock or other shares are issued, investors purchasing our common stock in this offering may experience further dilution. In addition, we may choose to raise additional capital due to market conditions or strategic considerations even if we believe we have sufficient funds for our current or future operating plans. To the extent that additional capital is raised through the sale of equity or convertible debt securities, the issuance of these securities could result in further dilution to our stockholders.

DESCRIPTION OF THE SECURITIES WE ARE OFFERING

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 prospectus. Our common stock is listed on The NASDAQ Capital Market under the symbol "EKSO."

The transfer agent and registrar for our common stock is VStock Transfer, LLC.

Warrants

The following is a brief summary of certain terms and conditions of the warrants and is subject in all respects to the provisions contained in the warrants. You should review a copy of the form of warrant for a complete description of the terms and conditions applicable to the warrants.

Exercisability. The warrants will be exercisable on the six month anniversary of the date of issuance and will expire on the date that is five years from the date when first exercisable. The warrants will be exercisable, at the option of each holder, in whole or in part by delivering to us a duly executed exercise notice and payment in full of the exercise price within three trading days in available funds for the number of shares of common stock purchased upon such exercise. If a registration statement registering the issuance of the shares of common stock underlying the warrants under the Securities Act is not effective or available, the holder may, in its sole discretion, elect to exercise the warrant through a cashless exercise, in which case the holder would receive upon such exercise the net number of shares of common stock determined according to the formula set forth in the warrant. No fractional shares of common stock will be issued in connection with the exercise of a warrant. In lieu of fractional shares, we will pay the holders an amount in cash equal to the fractional amount multiplied by the current market price of our common stock.

Exercise Limitation. A holder 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% (or, upon the election of the holder, 9.99%) 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, a holder may increase or decrease such percentage to any other percentage not in excess of 9.99% upon notice to us, provided that any increase in the beneficial ownership limitation shall not be effective until 61 days following notice to us.

Exercise Price. The exercise price per whole share of common stock purchasable upon exercise of the warrants is \$4.10. The exercise price is subject to adjustment in the event of certain stock dividends and distributions, stock splits, stock combinations, reclassifications or similar events affecting our common stock and also upon any distribution of assets, including cash, stock or other property, to our stockholders.

Transferability. Subject to applicable laws, the warrants may be offered for sale, sold, transferred or assigned without our consent.

Exchange Listing. We do not plan on applying to list the warrants on the Nasdaq Capital Market, any other national securities exchange or any other nationally recognized trading system.

Fundamental Transactions. In the event of a fundamental transaction, as described in the warrants 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, the holders of the warrants will be entitled 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. Alternatively, in the event of a fundamental transaction, at the holder's election, the Company will purchase the warrant from the holder for an amount in cash equal to the Black Scholes value of the warrant.

Rights as a Stockholder. Except as otherwise provided in the warrants or by virtue of such holder's ownership of shares of our common stock, the holder of a warrant does not have the rights or privileges of a holder of our common stock, including any voting rights, until the holder exercises the warrant.

PLAN OF DISTRIBUTION

Pursuant to a placement agency agreement, dated April 2, 2017, we have engaged B. Riley & Co., LLC, or the placement agent, to act as our placement agent in connection with this offering of our shares of common stock and common stock purchase warrants pursuant to this prospectus supplement and accompanying prospectus. Under the terms of the placement agency agreement, the placement agent has agreed to be our exclusive placement agent, on a reasonable best efforts basis, in connection with the issuance and sale by us of our shares of common stock and warrants in this takedown from our shelf registration statement. The terms of this offering were subject to market conditions and negotiations between us and prospective investors. The placement agency agreement does not give rise to any commitment by the placement agent to purchase any of our shares of common stock or the warrants, and the placement agent will have no authority to bind us by virtue of the placement agency agreement. Further, the placement agent does not guarantee that we will be able to raise new capital in any prospective offering. The placement agent may engage sub-agents or selected dealers to assist with the offering. In addition, the placement agent has indicated that it and/or its affiliates intends to participate as principal in the offering on the same terms as the other investors in the offering.

We have entered into securities purchase agreements directly with investors in connection with this offering, and we will only sell to investors who have entered into securities purchase agreements.

Each investor in this offering will enter into separate and substantially similar leak-out agreement with us. From the date of the securities purchase agreement until May 20, 2017, each investor who is party to a leak-out agreement (together with certain of its affiliates) may not sell, dispose or otherwise transfer, directly or indirectly (including, without limitation, any sales, short sales, swaps or any derivative transactions that would be equivalent to any sales or short positions), on any trading day, shares purchased in this offering, including the shares of Common Stock issuable upon exercise of the warrants, in an amount more than a specified percentage of the trading volume of the Common Stock, subject to certain exceptions. The aggregate trading volume for all investors who execute leak-out agreements will be 30% of the trading volume of the Common Stock during each trading day during the above-referenced leak-out period, subject to certain exceptions. This restriction does not apply to any sales by such investor (together with certain of its affiliates) at a price greater than \$4.25 at a time when the offer price of the Common Stock as reported by Bloomberg L.P. during regular market hours or after-market hours, as applicable, is greater than \$4.24 (in each case, as adjusted for stock splits, stock dividends, stock combinations, recapitalizations or other similar events occurring after the date hereof). Further, this restriction does not apply to sales or transfers of any such shares of Common Stock in transactions which do not need to be reported on the Nasdaq consolidated tape so long as the purchaser or transferee executes and delivers a leak-out agreement. After such sale or transfer, future sales of the securities covered by the leak-out agreement by the original owner (together with certain of its affiliate) and the purchaser or transferee will be aggregated to determine compliance with the terms of the leak-out agreement. A form of leak-out agreement is attached to the Form 8-K filed with the Securities and Exchange Commission in connection with this offering.

We will deliver the shares of common stock being issued to the investors electronically upon receipt of investor funds for the purchase of the shares of our common stock and warrants offered pursuant to this prospectus supplement and we will deliver the warrants in certificated form to the investors. We expect to deliver the shares of our common stock and warrants being offered pursuant to this prospectus supplement on or about April 6, 2017.

We have agreed to pay the placement agent a total cash fee equal to 6.5% of the gross proceeds of this offering. We have also agreed to reimburse the out-of-pocket expenses of the placement agent in connection with this offering up to \$35,000, subject to FINRA Rule 5110(f)(2)(D)(i). The following table shows the per share and total fee we will pay to the placement agent assuming the sale of all of the shares offered pursuant to this prospectus:

Per Unit:	\$0.204
Total:	\$761,774

We have agreed to indemnify the placement agent and specified other persons against some civil liabilities, including liabilities under the Securities Act and the Exchange Act, and to contribute to payments that the placement agent may be required to make in respect of such liabilities.

The placement agent may be deemed to be an underwriter within the meaning of Section 2(a)(11) of the Securities Act, and any commissions received by it and any profit realized on the resale of the securities sold by it while acting as principal might be deemed to be underwriting discounts or commissions under the Securities Act. As an underwriter, the placement agent would be required to comply with the requirements of the Securities Act and the Exchange Act, including, without limitation, Rule 10b-5 and Regulation M under the Exchange Act. These rules and regulations may limit the timing of purchases and sales of shares of our securities by the placement agent acting as principal. Under these rules and regulations, the placement agent:

- may not engage in any stabilization activity in connection with our securities; and
- may not bid for or purchase any of our securities or attempt to induce any person to purchase any of our securities, other than as permitted under the Exchange Act, until it has completed its participation in the distribution.

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

LEGAL MATTERS

The validity of the securities offered by this prospectus supplement and the accompanying prospectus will be passed upon by Nutter, McClennen & Fish, LLP, Boston, Massachusetts. Ellenoff Grossman and Schole, LLP, New York, New York, is acting as counsel for the placement agent in connection with this offering.

EXPERTS

The consolidated financial statements of Ekso Bionics Holdings, Inc. as of, and for the fiscal years ended December 31, 2016, 2015 and 2014, incorporated by reference into this prospectus, have been audited by OUM & Co. LLP, independent registered public accounting firm, as stated in their report which is incorporated by reference. Such financial statements have been incorporated 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 file reports, proxy statements and other information with the SEC as required by the Exchange Act. You can find, copy and inspect information we file at the SEC's public reference room at 100 F Street, N.E., Washington, D.C. 20549. You can call the SEC at 1-800-SEC-0330 for further information about the public reference room. You can review our electronically filed reports, proxy and information statements on the SEC's web site at <http://www.sec.gov> or on our web site at <http://www.eksobionics.com>. Information included on our web site is not incorporated into or a part of this prospectus supplement or any prospectus supplement.

This prospectus supplement is part of a registration statement we filed with the SEC. This prospectus supplement and the accompanying prospectus omit some information contained in the registration statement in accordance with SEC rules and regulations. You should review the information and exhibits in the registration statement for further information about us and the securities we are offering. Statements in this prospectus supplement and the accompanying prospectus concerning any document we filed as an exhibit to the registration statement or that we otherwise filed with the SEC are not intended to be comprehensive and are qualified by reference to these filings. You should review the complete document to evaluate these statements. You can obtain a copy of the registration statement from the SEC at the address listed above or from the SEC's website.

INCORPORATION BY REFERENCE

The SEC allows us to incorporate by reference much of the information we file with the SEC, which means that we can disclose important information to you by referring you to those publicly available documents. The information that we incorporate by reference in this prospectus supplement is considered to be part of this prospectus supplement. Because we are incorporating by reference future filings with the SEC, this prospectus supplement is continually updated and those future filings may modify or supersede some of the information included or incorporated in this prospectus supplement. This means that you must look at all of the SEC filings that we incorporate by reference to determine if any of the statements in this prospectus supplement or in any document previously incorporated by reference have been modified or superseded. This prospectus supplement incorporates by reference the documents listed below and any future filings we make with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934, as amended, or the Exchange Act (in each case, other than those documents or the portions of those documents not deemed to be filed) between the date of the initial registration statement and the effectiveness of the registration statement and following the effectiveness of the registration statement until the offering of the securities under the registration statement is terminated or completed:

- our Annual Report on Form 10-K for the fiscal year ended December 31, 2016 filed on March 15, 2017;
- our Current Reports on Form 8-K filed on January 6, 2017 and March 23, 2017;
- 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 supplement and prior to the termination or completion of the offering of securities under this prospectus supplement shall be deemed to be incorporated by reference in this prospectus supplement and to be a part hereof from the date of filing such reports and other documents.

A statement contained in a document incorporated by reference into this prospectus supplement and the accompanying prospectus shall be deemed to be modified or superseded for purposes of this prospectus supplement and the accompanying prospectus to the extent that a statement contained in this prospectus supplement, the accompanying prospectus or in any other subsequently filed document which is also incorporated in this prospectus supplement modifies or replaces such statement. Any statements so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this prospectus supplement and the accompanying prospectus.

You may request a copy of these documents, which will be provided to you at no cost, by writing or telephoning us using the following contact information:

Ekso Bionics Holdings, Inc.
Attention: Investor Relations
1414 Harbour Way South, Suite 1201
Richmond, CA 94804
Phone: (510) 984-1761

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 on 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 designed by 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 OTC Markets under the symbol “EKSO.” On June 22, 2015, the last reported sale price of our common stock was \$1.25 per share. The applicable prospectus supplement will contain information, where applicable, as to any other listing, if any, on the OTC Markets 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 4 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 July 9, 2015.

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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 by reference 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, 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 wearable bionic or robotic exoskeletons that have applications in healthcare, industrial, military, and consumer markets. Our exoskeletons systems are strapped over the user's clothing and augment human strength, endurance and mobility. These systems serve multiple markets and can be used both by able-bodied users as well as by persons with physical disabilities. We or our partners have sold, rented or leased devices that (a) enable individuals with neurological conditions affecting gait (e.g., spinal cord injury or stroke) to rehabilitate and to walk again; (b) allow industrial workers to perform heavy duty work for extended periods; and (c) permit soldiers to carry heavy loads for long distances while mitigating lower back, knee, and ankle injuries.

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, 2014, as described under the caption "Incorporation of Documents by Reference" on page 14 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.

Our principal executive offices are located at 1414 Harbour Way South, Suite 1201, Richmond, California 94804 and our telephone number is (510) 984-1761. Our website address is www.eksobionics.com. The information contained on, or that can be accessed through, our website is not a part of this prospectus. We have included our website address in this prospectus solely as an inactive textual reference.

Our logo, trademarks and service marks are the property of Ekso Bionics. Other trademarks or service marks appearing in this prospectus are the property of their respective holders.

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 filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended, or the Exchange Act, are available free of charge through the investors page of our internet website as soon as reasonably practicable after we electronically file such material with, or furnish it to, 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, or Sarbanes Oxley Act;
- 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 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 wearable bionic or robotic exoskeletons that have applications in healthcare, industrial, military, and consumer markets. Our exoskeletons systems are strapped over the user's clothing and augment human strength, endurance and mobility. These systems serve multiple markets and can be used both by able-bodied users as well as by persons with physical disabilities. We or our partners have sold, rented or leased devices that (a) enable individuals with neurological conditions affecting gait (e.g., spinal cord injury or stroke) to rehabilitate and to walk again; (b) allow industrial workers to perform heavy duty work for extended periods; and (c) permit soldiers to carry heavy loads for long distances while mitigating lower back, knee, and ankle injuries.

Our long-term goal is to have one million people stand and walk in an Ekso exoskeleton by February 2022. Our first step to achieving that goal was for us to focus on selling our medical exoskeletons to rehabilitation centers and hospitals in the United States and Europe. We began that journey in February 2012 with our first sale of the Ekso, an exoskeleton for complete spinal cord injuries ("SCI"). We have since expanded that effort with the July 2013 launch of our Variable Assist software and the December 2013 release of our next generation Ekso hardware platform, Ekso GT. The Variable Assist software enables users with any amount of lower extremity strength to contribute their own power for either leg to achieve self-initiated walking. The Ekso GT builds on the experience of the Ekso and incorporates the Variable Assist software, allowing us to expand our sales and marketing efforts beyond SCI-focused centers to centers supporting stroke and related neurological patients.

Ekso Labs, our engineering services division, furthers exoskeleton technology for current medical applications and conducts research and development work which may have potential use in future, able-bodied models of the Ekso human exoskeleton. To date, the majority of our Ekso Labs revenue has been in the form of research grants from government organizations. Many of the research projects funded by grants are focused on researching future medical applications and capabilities not yet ready for commercial development. Other projects, often funded by commercial partners or the U.S. military, focus on able-bodied human exoskeleton applications, such as industrial models that are intended to increase an individual's workload, endurance and efficiency, allowing workers to carry heavy objects for much longer while reducing employee injuries. Our military and industrial able-bodied exoskeleton products are all in the developmental stage.

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 OTCBB 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 authorized for quotation and trading on the OTC Markets. The applicable prospectus supplement will contain information, where applicable, as to any other listing, if any, on the OTC Markets 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 500,000,000 shares of common stock, par value \$0.001 per share. On June 18, 2015, we had 102,123,767 shares of common stock outstanding and approximately 313 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.

OTC Markets

Our common stock is listed for quotation on the OTC Markets 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. As of June 18, 2015, no shares of our preferred stock were outstanding or designated. 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.

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 June 18, 2015, warrants to purchase an aggregate of 13,747,161 shares of our common stock are issued and outstanding, of which warrants to purchase 621,361 shares of common stock have an exercise price of \$1.38 per share and expire on May 20, 2020 (the “Pre-Merger Warrants”), warrants to purchase 2,600,000 shares of common stock have an exercise price of \$1.00 per share and expire on January 15, 2017, warrants to purchase 2,981,300 shares of common stock have an exercise price of \$1.00 per share and expire on January 15, 2019, and warrants to purchase 7,544,500 shares of common stock have an exercise price of \$2.00 per share and expire on January 15, 2019. 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.

We will incorporate by reference from reports that we file with the SEC, the form of unit agreement that describes the terms of the series of units we are offering, and any supplemental agreements, before the issuance of the related series of units. The following summaries of material terms and provisions of the units are subject to, and qualified in their entirety by reference to, all the provisions of the unit agreement and any supplemental agreements applicable to a particular series of units. We urge you to read the applicable prospectus supplements related to the particular series of units that we may offer under this prospectus, as well as any related free writing prospectuses and the complete unit agreement and any supplemental agreements that contain the terms of the units.

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, 2014, 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, 2014 filed on March 19, 2015;
- our Quarterly Report on Form 10-Q for the fiscal quarter ended March 31, 2015, filed on May 11, 2015;
- our Current Reports on Form 8-K filed on April 10, 2015 and June 16, 2015 ; and
- the description of our common stock contained in our Registration Statement on Form 8-A filed on May 6, 2015, including any amendment or report filed for the purpose of updating such description.

We also incorporate by reference into this prospectus additional documents that we may file with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act prior to the completion or termination of the offering, including all such documents we may file with the SEC after the date of the initial registration statement and prior to the effectiveness of the registration statement, but excluding any information deemed furnished and not filed with the SEC.

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.

**3,732,356 Shares of Common Stock
Warrants to Purchase 1,866,178 Shares of Common Stock**



PROSPECTUS SUPPLEMENT

B. Riley & Co.

April 4, 2017
