

March 5, 2014

VIA EDGAR CORRESPONDENCE

Securities and Exchange Commission
Division of Corporation Finance
100 F Street, N.E.
Washington, D.C. 20549
Attn: Jay Ingram, Legal Branch Chief

**Re: Ekso Bionics Holdings, Inc.
Form 8-K
Filed January 23, 2014
File No. 333-181229**

Ladies and Gentlemen:

On behalf of our client, Ekso Bionics Holdings, Inc. (the "Company"), set forth below is the response of the Company to the comments of the staff of the Securities and Exchange Commission (the "SEC") provided by a letter dated February 19, 2014. The comment letter relates to the Company's Form 8-K filed January 23, 2014 (the "Form 8-K").

As described in more detail below, the Company anticipates revising the Form 8-K to address many of the staff's comments. The Company also expects to file its transition report as an amendment to its Current Report on Form 8-K on or before March 31, 2014 to include audited financial statements for Ekso Bionics, Inc. for the year ended December 31, 2013 (the "Amendment"). The Company believes that the changes to the Form 8-K will not be so material as to warrant an immediate amendment of the Form 8-K and respectfully requests that the staff permit the Company to incorporate the staff's comments into the Amendment to be filed on or before March 31, 2014.

For your convenience, each staff comment is presented below in italics, with the Company's response immediately following in regular type. Capitalized terms not otherwise defined in this letter have the meanings ascribed to them in the Form 8-K.

General

- You state on page 72 that in connection with the reverse merger you changed your fiscal year from March 31 to December 31 and that "The report covering the transition period will be filed on Form 10-K as of and for the transition period ended September 30, 2013." Please clarify why you believe a transition report is required and for what period. Since you state that the fiscal year will now be December 31, that of the accounting acquirer, it would appear necessary that a Form 8-K/A that includes audited financial statements for Ekso Bionics, Inc. (the accounting acquirer) for the year ended December 31, 2013 be filed in order to avoid a lapse in reporting period.*
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As noted above, the Company now intends to file its transition report as an amendment to its Current Report on Form 8-K filed with the SEC on January 23, 2014, which Amendment will be filed on or before March 31, 2014. The Amendment will include audited financial statements for Ekso Bionics, Inc. for the year ended December 31, 2013.

Item 2.01 Completion of Acquisition or Disposition of Assets, page 4

Description of Business, page 11

General

2. *We note your risk factor “[t]he disruption or loss of relationships with vendors and suppliers for the components of [y]our products could materially adversely affect . . .” on page 29. Please discuss in greater detail in your Description of Business section the sources of raw materials and, if applicable, the names of principal suppliers used in connection with your manufacturing of exoskeletons. Refer to Item 101(h)(4)(v) of Regulation S-K. Please also disclose the materials necessary to manufacture your products. Further, please disclose whether you have entered into an agreement with any supplier, and, if so, tell us what consideration you have given to filing any agreement with a supplier as an exhibit to the Form 8-K. Refer to Item 601(b)(10) of Regulation S-K.*

Most of the raw materials used to manufacture the Ekso are sourced in the San Francisco Bay Area and consist of machined components, batteries, printed circuit boards and cables. The materials used are primarily aluminum, titanium, stainless steel and carbon fiber. These raw materials are readily available, and the Company is not dependent on any principal supplier. The Company has not entered into any material agreements with any of its suppliers that would be required to be filed as an exhibit to the Form 8-K.

In the Amendment and in future filings, if applicable, the Company will expand its discussion under “Ekso Bionics’ Medical Technology” to address sources and availability of raw materials and will make appropriate revisions to the risk factor regarding disruption or loss of relationships with vendors and suppliers.

3. *We note your disclosure on page 45 regarding research and development costs. Please provide the disclosure required by Item 101(h)(4)(x) of Regulation S-K with respect to research and development costs incurred by Ekso Bionics, Inc. in the past two fiscal years in your Description of Business section discussion.*

The Company engages in research and development in an effort to enhance the effectiveness, ease of use, safety and reliability of its medical, commercial, and strength-enhancing exoskeletons and to expand the applications for its products. The Company’s research and development expenditures were \$4.3 million and \$3.2 million in 2012 and 2011, respectively. In addition, as part of its engineering services, which are paid for by grant funding, by collaboration partners, or by engineering services customers, the Company generated engineering services revenue for which it incurred additional research and development costs. Such cost of engineering services amounted to \$1.8 million and \$1.3 million in 2012 and 2011, respectively.

The Company will expand its discussion of its research and development costs in the Amendment and in future filings, if applicable.

Overview, page 12

4. *We note your disclosure on page 12 that you “have sold over 40 devices to rehabilitation centers and individual users for rehabilitation since February 2012” and that “Ekso Bionics is at a key point in the growth of its business.” Please briefly disclose here your history of losses to date and your furloughing of employees in July 2013.*

The Company will revise the third paragraph of the section entitled “Description of Business – Overview” in the Amendment to provide as follows:

“We believe the Company is at a key point in the growth of its business. From inception to September 2013, Ekso Bionics has accumulated over \$35.0 million of losses and in July 2013 furloughed 30 of its 71 employees in order to extend operations to the end of 2013. In January 2014, the Company completed the Merger and PPO, resulting in \$30.3 million in gross proceeds. With the additional capital resulting from the Merger and PPO, the Company believes that it now has the resources to further penetrate the medical market and to begin to penetrate the military and industrial markets over the next several years.”

The Technology, page 13

5. *We note your disclosure on page 14 regarding “the potential to generate licensing revenue in fields outside [y]our present areas of commercialization.” Please revise your disclosure to specify whether or not you have generated any licensing revenue either within or outside your present areas of commercialization, and if so, please state the amount of revenue generated to date.*

The Company has not generated any licensing revenue in fields outside of the present areas of commercialization through December 31, 2013. The Company will revise the disclosure regarding licensing revenue in the Amendment and in future filings, if applicable, to reflect this fact.

6. *Please expand your disclosure to explain the distinction between and nature of “issued,” “in prosecution” and “provisional” patents.*

The Company will expand its disclosure in the Amendment and in future filings, if applicable, to clarify that “issued” patents refers to patents that have been granted, patents “in prosecution” refers to patents where a complete application has been filed with the applicable patent authority and additional action is pending, and “provisional” patent applications refers to a short form application that is filed to establish an early filing date in anticipation of completion and submission of a complete application.

Medical Market Strategy, page 15

7. *Please revise your disclosure to include an approximate timeframe for when your initial and second “go-to-market” strategies were first implemented.*

The Company’s initial go-to-market strategy began in the first quarter of 2012. The Company initiated its second, and current, go-to-market strategy in July 2013. The Company will revise its disclosure to include these dates in the Amendment and in future filings, if applicable.

Potential Market for our Medical Products, page 16

8. *Please supplementally provide us with the basis for your estimates of “300 SCI centers” and “approximately 3,000 hospitals” in Europe.*

In estimating the size of the potential market, the Company looked at both (a) the number of incidences for SCI and Stroke across Europe and (b) the number of centers/hospitals. Given the Company’s current sales and marketing focus on driving adoption at rehabilitation and related centers, the Company focused its description in the 8-K filing on the number of centers/hospitals as it estimates them to be.

For its estimate of SCI centers and of hospitals in Europe, the Company took the estimated number of centers/hospital in those countries where data was readily available to it and calculated estimates for countries where the data was not readily available based on population and then totaled these figures. Separate and apart from these calculations, a presentation by Paul Garassus, M.D., the Vice President of the French Health Economic Society and member of the European Private Hospitals Union, at the World of Health IT Conference in 2010 reported that there are approximately 12,000 private and public hospitals, of which an estimated 4,600 are classified as acute care facilities. (Source: <http://www.worldofhealthit.org/sessionhandouts/documents/PS21-4-Garassus.pdf>)

Competition, page 20

9. *Please expand your discussion to describe your company’s competitive position in the exoskeleton industry and how your company effectively competes as a manufacturer and designer. Please also revise your disclosure to describe in more detail the challenges faced by your company.*
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The various technologies that compete with the Company's technology represent therapeutic interventions with utility at varying points of the continuum of care. Clinically, the Ekso is unique in its broad ability to mobilize pre- or even non-ambulatory patients using a full weight bearing, over ground, task-based platform. From a practice management perspective, the Ekso is less expensive than many other systems, has a smaller footprint, the ability to move around the hospital, and uses standard power requirements that make it easy to integrate into existing infrastructure. In addition, the Ekso's design accommodates patients with complete paraplegia, and also includes features that are optimized to assist therapists in helping patients with some motor ability learn to walk again in a clinical setting.

On the other hand, certain of our competitors are better capitalized, have benefited from a first-mover advantage, and offer their products at a lower price.

As noted in the Form 8-K, the field of robotic exoskeleton technology remains in its infancy, and it is impossible to predict all of the competitive pressures that will be faced by the Company. Further, the Company believes that its biggest challenge is not necessarily from competitive technologies, but rather achieving market awareness and adoption of our technology while acclimating prospective customers to a fundamentally new paradigm in neuro-rehabilitation and mobility, as well as addressing funding issues encountered by prospective customers. As such, the Company respectfully submits that the disclosure in the "Competition" section of the Form 8-K sufficiently describes the Company's competitive position.

Management's Discussion and Analysis of Financial Condition and Results of Operations, page 37

10. *Regarding your contract with USSOCOM awarded in December 2013. Please revise to disclose a description of each milestone and its related contingent consideration as required by AS 605-28-50-2b. To the extent that you consider the aggregation of the four milestones in your disclosure to be meaningful to investors, in lieu of the requirement to disclose each such milestone, please revise your disclosure to:*

- *Disclose the nature of payment triggering events underlying each milestone included in the aggregated categories you disclose, and*
- *Separately disclose the nature and related contingent consideration for any individual milestone that is significant. To the extent you do not believe any of the individual milestones in the agreement is significant please demonstrate to us why not.*

The contract with USSOCOM is a fixed price contract. There is no contingent consideration.

The statement of work describes four milestones divided into tasks and sub-tasks, with required accomplishments and progress payments associated with each milestone. Each milestone must be successfully accomplished and verified in order to receive payment and proceed to the next sub-task. The first four milestones relate to the development and delivery of a functional prototype exoskeleton device that significantly reduces the load on users while introducing a negligible metabolic impact and meets other specifications set forth in the agreement. Payments for these milestones are \$150,000, \$200,000, \$250,000 and \$250,000 for each of the first four milestones, respectively. The final task of the project relates to the submission of a report summarizing testing results and a recommended path forward for which the payment is \$146,000. This is the first award granted under USSOCOM's TALOS (Tactical Assault Light Operator Suit) project.

The Company will revise the disclosure in the Description of Business, Exoskeleton Technology for Able-Bodied Applications section of the Form 8-K, to more fully explain the milestones and related payments. The Company, respectfully, does not believe further disclosure of the USSOCOM contract is needed in Management's Discussion and Analysis of the Form 8-K because there is no revenue from this contract related to 2013. However, once there is revenue generated in a reporting period under the USSOCOM contract, disclosure of the progress and related revenue will be added to Management's Discussion and Analysis as appropriate.

Financial Condition, Liquidity and Capital Resources, page 46

11. *In light of your disclosure on page 45 regarding efforts in 2013 to reduce your cash burn rate and your disclosure on pages 46 and 47 regarding management's belief of sufficient capital for operations "through the middle of 2015" and "for at least the next 18 months" respectively, please disclose your monthly cash burn rate.*

The Company estimates its current monthly operating expenses, including direct labor and overhead, to be approximately \$950,000. The Company updates its projected cash needs regularly to address changes in its business plans. The Company will update this information in its discussion of financial condition, liquidity and capital resources in the Amendment and further filings, as applicable, using the most current available information.

12. *Your liquidity discussion does not provide detailed explanations of the reasons for changes in operating cash flows. Please revise to disclose the reasons for the changes in operating assets and liabilities, specifically addressing the significant increases in customer advances and deferred revenues as this change has had a material impact on your operating cash flows.*

Changes in other operating assets and liabilities impacted cash used in operating activities. The most significant adjustment to net loss was from the increase in 2013 in customer advances and deferred revenues net of deferred costs of revenues. The change in 2013 was due to an increase in the number of medical devices shipped over 2012 for which the Company was paid but the revenue, net of costs, was deferred and amortized over the maintenance period.

The Company will include a discussion about the changes in other operating assets and liabilities in the Amendment.

Security Ownership of Certain Beneficial Owners and Management, page 49

13. *Please identify the natural person or persons who exercise the sole or shared voting and/or dispositive powers with respect to the shares held by CNI Commercial LLC.*

David L. Nimmo is the President and Chief Executive Officer of Chickasaw Nation Industries, Inc., which is the sole member of CNI Commercial, LLC, and in such capacity Mr. Nimmo has the power and authority to vote and make dispositive decisions with respect to stock held by Chickasaw Nation Industries, Inc. and CNI Commercial, LLC. The Company will revise the footnote to the beneficial ownership table in the Amendment and future filings, if applicable, to reflect this information.

Directors, Executive Officers, Promoters and Control Persons, page 51

Directors, page 52

14. *Please revise your disclosure for each of your directors to briefly discuss the specific experience, qualifications, attributes or skills that led to the conclusion that each should serve as a director in light of your business and structure. Refer to Item 401(e) of Regulation S-K.*

The Company will include in the Amendment and future filings, if applicable, a discussion of the specific experience, qualifications, attributes and skills that led to the conclusion that each director should serve as a director in light of the Company's business and structure.

15. *Please revise your disclosure to provide a chronological history of Mr. Peurach's principal occupation and employment history over the past 5 years. Your current disclosure does not specify time periods.*

As requested, the Company will add relevant dates to Mr. Peurach's history for at least the past 5 years in the Amendment and future filings, if applicable.

Director Compensation, page 61

16. *We note your disclosure that option awards with a value of \$48,698 were granted to Daniel Boren in 2013. Please include a narrative description of Mr. Boren's compensation explaining the differences in compensation between Mr. Boren and the other directors who do not appear to have received any compensation in 2013 from Ekso Bionics, or please advise. See Item 402(r)(3)(ii) of Regulation S-K.*

Mr. Boren joined the Company's board of directors in 2013 and was granted stock options related to his initial membership. No other member joined the board in 2013 so there was no similar compensation to any other member. The Company will add an explanation of the reason for the differences in compensation in the Amendment and future filings, if applicable.

Certain Relationships and Related Transactions, page 62

17. *We note your disclosure on page F-25 that a “relative of one of the Company’s officers invested \$121,546 in the Company’s convertible debt bridge loans.” This transaction does not appear to be discussed on pages 62-63. Please advise.*

The reference to a relative of one of the Company’s officers refers to the adult, non-dependent cousin of the chief financial officer. The disclosure will be deleted from the related party footnote to the financial statements in the Amendment and future filings, if applicable.

Indemnification of Directors and Officers, page 68

18. *We note your disclosure on page 69 that you “intend to enter into an Indemnification Agreement with each of [y]our directors” Please confirm that you will file a form of your director Indemnification Agreement as an exhibit with your amended Form 8-K or with your next periodic report, as applicable.*

Once the Indemnification Agreements have been entered into, the Company will file such agreements to the Amendment or the Company’s next periodic report, as applicable.

Item 3.02 Unregistered Sales of Equity Securities, page 69

Shares Issued in Connection with the Merger, page 69

19. *Please indicate the section of the Securities Act or the rule of the Commission under which exemption from registration was claimed in connection with the issuance of 250,000 shares of common stock issued to a consultant, and state briefly the facts relied upon to make the exemption available. See Item 701(c) of Regulation S-K.*

The issuance of the 250,000 shares of common stock to three consultants was exempt from registration under Section 4(a)(2) of the Securities Act as not involving any public offering. Each of the consultants to whom the shares were issued was an accredited investor, understood that all shares issued to it would be restricted and could not be offered for sale, sole, assigned or transferred unless subsequently registered or pursuant to an exemption from registration, and was aware that the shares issued to such consultant may never be freely transferrable.

Consolidated Statements of Operations, page F-4

20. *Please revise your historical statements of operations to provide historical basic and diluted per share data on the face thereof.*
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The Company intentionally omitted presentation of historical basic and diluted per share data on the face of the consolidated statements of operations because such information is of little usefulness, and even confusing, due to the significant recapitalization which occurred on January 15, 2014. The Company believes the proforma net loss per share in the proforma consolidated statements of operations for the period from January 1, 2013 to September 30, 2013 and the year ended December 31, 2012 provide more meaningful per share data information in lieu of a historical presentation. To further explain the Company's rationale, shares outstanding on an historical basis were about 10 million but on a proforma basis, shares deemed outstanding were about 68 million.

2. Summary of Significant Accounting Policies and Estimates, page F-9

21. *We note your Comprehensive Income/(Loss) accounting policy on page F-17 where you disclose that comprehensive loss "was comprised solely of the Company's consolidated net loss." Please tell us how you considered the growing operations in foreign countries and the related foreign currency translation adjustments when presenting comprehensive income/(loss) in accordance with ASC 220.*

The Company uses the U.S. dollar as its functional currency. Since some of the Company's transactions are executed in various non-U.S. dollar currencies, the Company converts these transactions into U.S. dollars for reporting purposes and any foreign exchange transaction gains and losses are included in the consolidated statements of operations. Such gains or losses were \$18,000 in 2012 and \$3,000 for the nine months ended September 2013. Accordingly, no foreign currency translation gains/losses were charged or credited to comprehensive income/loss.

3. Fair Value Measurements, page F-18

22. *We note your changes in value of the Level 3 liabilities of \$738,114 at December 31, 2012 does not agree to the amount of total Level 3 liabilities at December 31, 2013 (\$4,092,135) in the table showing assets and liabilities measured on a recurring basis. Please reconcile this difference and/or revise accordingly.*

The table which discloses changes in the value of the Level 3 liabilities presents only the account for unrealized appreciation (mark-to-market) of \$174,292 used to adjust the contractual debt obligation of \$3,354,021 to its fair value as of December 31, 2013.

In the Amendment and in future filings, the table will be adjusted to include a line item for the contractual debt obligation so that the two tables will agree.

Unaudited Pro Forma Consolidated Financial Statements

Note 2 – Pro Forma Presentation, page 7

23. *You disclose on page 9 that “The estimated fair value of \$92,800 for the warrants to purchase 225,000 shares of common stock issued to a prior lender as an accommodation related to the Merger has not been reflected in the pro forma statements of operations because the amount is directly related to the Merger and is non-recurring.” It is unclear why the value of these warrants have not been reflected in the pro forma financial statements when you state that the issuance was related to the merger. Please clarify why this issuance was not included and how your presentation complies with Article 11.*

The Company issued warrants to a prior lender in connection with services related to the conversion of the Bridge Notes and the Merger. The fair value of the warrants of \$92,800 will be a one-time charge to interest expense on the date of close, January 15, 2014.

Article 11-02.(b)(5) states, in part, that “The pro forma condensed income statement shall disclose income (loss) from continuing operations before nonrecurring charges or credits directly attributable to the transaction.” Sub-paragraph (b)(6) states in part, that the pro forma income statement “shall include adjustments which give effect to events that are . . . (ii) expected to have a continuing impact on the registrant . . .” Accordingly, the \$92,800 non-recurring expense has been disclosed but not included as an adjustment to the pro forma statement of operations.

Sub-paragraph (b)(6) also states that, “Pro forma adjustments related to the pro forma condensed balance sheet . . . shall include adjustments which give effect to events that are directly attributable to the transaction and factually supportable regardless of whether they have a continuing impact or are nonrecurring.” Accordingly, the Company included adjustment (g) to the proforma balance sheet.

* * *

The Company acknowledges that it is responsible for the adequacy and accuracy of the disclosure in the Form 8-K, that staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the Form 8-K, and that the Company may not assert staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

Please feel free to contact the undersigned at 617-439-2477 if you have any question relating to the Form 8-K or this letter.

Sincerely,

/s/ Michelle L. Basil
Michelle L. Basil

cc: *Securities and Exchange Commission*
Kamyar Daneshvar, Staff Attorney
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