



November 28, 2016

Securities and Exchange Commission
Division of Corporation Finance
100 F Street, N.E.
Washington, D.C. 20549
Attn: Terence O'Brien, Accounting Branch Chief

**Re: Ekso Bionics Holdings, Inc.
Form 10-K for the Fiscal Year Ended Dec. 31, 2015
Filed March 14, 2016
Form 10-Q for the Quarter Ended March 31, 2016
Filed May 10, 2016
Definitive Proxy on Schedule 14A
Filed April 25, 2016
File No. 000-55442**

Ladies and Gentlemen:

We are in receipt of the comments of the staff of the Securities and Exchange Commission (the "SEC") provided by a letter dated November 18, 2016. The comment letter relates to the above-referenced Form 10-K for the Fiscal Year Ended December 31, 2015 (the "10-K"), Form 10-Q for the Quarter Ended March 31, 2016 (the "10-Q") and Definitive Proxy Statement on Schedule 14A filed April 25, 2016 (the "Proxy Statement"), in each case, as filed by Ekso Bionics Holdings, Inc. (the "Company").

For your convenience, each staff comment is presented below in italics, with the Company's response immediately following in regular type.

Form 10-Q for the Quarter Ended 3/31/2016

Notes to Condensed Consolidated Financial Statements (unaudited), page 19

- We note from your first quarter results made available on your investor relations website that you have sold 25 demonstration Ekso Aerial devices related to the industrial division. This appears to be a transaction unrelated to existing segments. Please tell us how this transaction affected your 2016 first quarter results.*

During the quarter ended March 31, 2016, the Company sold 25 Ekso Aerial devices at cost to one customer for the purpose of demonstrating their commercial viability ("demonstration units"). As a result of the sale, the Company recorded \$135,000 in revenue, which represented 1.68% of the Company's total revenue related to medical devices for the quarter ended March 31, 2016, and a 0% gross margin. Beginning with the Company's Form 10-Q for the Quarter Ended September 30, 2016, the Company is reporting Industrial Sales as a segment due to its growing materiality and relevance.

10-K for year ended December 31, 2015

Intellectual Property Out-Licensing, page 9

2. *Please describe, and include in future filings, the nature of the licensing revenue you receive from Lockheed Martin Corporation and OttoBock Healthcare Product GmbH.*

With respect to Lockheed Martin Corporation ("Lockheed"), the Company receives revenue pursuant to the Government Field Cross License Agreement dated as of July 1, 2013 between Ekso Bionics, Inc. and Lockheed and the Cross License Agreement dated as of July 1, 2013 between Ekso Bionics, Inc. and Lockheed, and previously pursuant to a License Agreement dated January 8, 2009, which was terminated effected as of July 1, 2013. Pursuant to these agreements, the Company has licensed to Lockheed certain rights with respect to its anthropomorphic exoskeleton technology for which Lockheed is obligated to pay Ekso Bionics, Inc. a royalty on sales of products incorporating such technology. The payments are described as exclusivity, technology transfer, and license fees. Royalty fees from Lockheed were di minimus for the years ended December 31, 2014 and 2015. Other revenue received from Lockheed in those years related to engineering services.

With respect to OttoBock Healthcare Product GmbH ("OttoBock"), the Company received exclusivity payments pursuant to the License and Services Agreement dated October 27, 2014. The License and Services Agreement grants OttoBock exclusive rights in order to develop a semi active prosthetic knee prototype for use in medical prosthetics and provides that OttoBock will pay the Company a royalty based on sales by OttoBock of products incorporating the licensed technology. Royalty fees from Ottobock were \$250,000 for the year ended December 31, 2014 and \$100,000 for the year ended December 31, 2015.

Definitive Proxy on Schedule 14A

Equity Awards, page 18

3. *In future filings, please elaborate on the 2014 Equity Incentive Plan and how the Compensation Committee grants awards. In addition, please tell us why you omitted the tabular disclosure required by Item 402(d) of Regulation S-K for the option awards granted in 2015.*

The Company confirms that it will provide additional disclosure in future filings regarding the 2014 Equity Incentive Plan and how the Compensation Committee grants awards.

The Company omitted the tabular disclosure required by Item 402(d) of Regulation S-K because it is an “emerging growth company” under the Jumpstart Our Business Startups Act, and as such, elected to follow the scaled disclosure provisions under Section 102 thereof, which allow the Company to comply with Item 402 by disclosing the same information as an issuer that is a “smaller reporting company.” A registrant that qualifies as a “smaller reporting company,” may provide the scaled disclosure in paragraphs (m) through (r) instead of paragraphs (a) through (k) and (s) of Item 402 of Regulation S-K.

* * *

The Company acknowledges that it is responsible for the adequacy and accuracy of its disclosure, notwithstanding any review, comments, action or absence of action by the staff.

Please feel free to contact the undersigned at 707-324-9509 if you have any question relating to the Form 10-K, 10-Q, Proxy Statement or this letter.

Sincerely,

/s/ Max Scheder-Bieschin

Max Scheder-Bieschin

cc: *Securities and Exchange Commission*
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