



UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

DIVISION OF
CORPORATION FINANCE

Mail Stop 4631

November 18, 2016

Via E-mail

Mr. Maximilian Scheder-Bieschin
Chief Financial Officer
Ekso Bionics Holdings, Inc.
1414 Harbour Way South, Suite 1201
Richmond, California 94804

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

Dear Mr. Maximilian Scheder-Bieschin:

We have reviewed your filing and have the following comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to these comments within ten business days by providing the requested information or advise us as soon as possible when you will respond. If you do not believe our comments apply to your facts and circumstances, please tell us why in your response.

After reviewing your response to these comments, we may have additional comments.

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

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

1. 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.

Mr. Maximilian Scheder-Bieschin
Ekso Bionics Holdings, Inc.
November 18, 2016
Page 2

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.

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.

We remind you that the company and its management are responsible for the accuracy and adequacy of their disclosures, notwithstanding any review, comments, action or absence of action by the staff.

You may contact me at (202) 551-3355 if you have questions regarding comments on the financial statements and related matters. Please contact Kathryn McHale at (202) 551-3464 or Jay Ingram at (202) 551-3397 with any other questions.

Sincerely,

/s/ Terence O'Brien

Terence O'Brien
Accounting Branch Chief
Office of Manufacturing and
Construction