



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

DIVISION OF
CORPORATION FINANCE

Mail Stop 3030

August 29, 2017

Via E-mail

Ryan Rhodes
Chief Executive Officer
Restoration Robotics, Inc.
128 Baytech Drive
San Jose, CA 95134

**Re: Restoration Robotics, Inc.
Amendment No. 1 to
Draft Registration Statement on Form S-1
Submitted August 15, 2017
CIK No. 0001409269**

Dear Mr. Rhodes:

We have reviewed your amended draft registration statement 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 this letter by providing the requested information and either submitting an amended draft registration statement or publicly filing your registration statement on EDGAR. If you do not believe our comments apply to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing the information you provide in response to these comments and your amended draft registration statement or filed registration statement, we may have additional comments.

The ARTAS Solution, page 2

1. Expand your response to prior comment 2 to tell us the portion of patients that experience the results depicted.

Six Months Ended June 30, 2016 and June 30, 2017, page 68

2. We note your response to prior comment 13; however, it appears that a portion of your increase in revenue for the six months ended June 30, 2017 compared to the six months ended June 30, 2016 is due to increases in price of your ARTAS system given the number of units you sold in each period. Please revise your disclosure accordingly.

Ryan Rhodes
Restoration Robotics, Inc.
August 29, 2017
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Exhibits Index

3. Tell us why you deleted former exhibit 10.25 from your exhibits index.

You may contact David Burton at (202) 551-3626 or Lynn Dicker, Senior Accountant, at (202) 551-3616 if you have questions regarding comments on the financial statements and related matters. Please contact Heather Percival at (202) 551-3498 or me at (202) 551-3617 with any other questions.

Sincerely,

/s/ Russell Mancuso

Russell Mancuso
Branch Chief
Office of Electronics and Machinery

cc: Brian J. Cuneo, Esq.
Latham & Watkins LLP