

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

December 22, 2017

Jose Carmona Chief Financial Officer Radius Health, Inc. 950 Winter Street Waltham, Massachusetts 02451

Re: Radius Health, Inc.

Form 10-K for the Fiscal Year Ended December 31, 2016 Filed February 24, 2017 Form 10-Q for the Quarterly Period Ended September 30, 2017

Filed November 2, 2017

File No. 001-35726

Dear Mr. Carmona:

We have limited our review of your filings to the financial statements and related disclosures 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-K for the Fiscal Year Ended December 31, 2016

Management's Discussion and Analysis of Financial Condition and Results of Operations Financial Overview

Research and Development Expenses, page 62

1. We note that research and development expenses directly charged to programs during 2016 make up only 50% of your total research and development expenses. Please tell us the research and development expenses incurred by types of costs, that were not directly charged to programs, such as facilities, depreciation, stock-based compensation and research and development support services for the year ended December 31, 2016 and for the quarters ended March 31, June 30 and September 30, 2017.

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Notes to Consolidated Financial Statements

14. Commitments and Contingencies

Commitments, page 100

2. Please tell us the minimum purchase requirement under the agreement with Polypeptide Laboratories Holding AB. In addition, tell us why this commitment is not included in your contractual obligations table.

Form 10-Q for the Quarterly Period Ended September 30, 2017

Notes to Condensed Consolidated Financial Statements

2. Basis of Presentation and Significant Accounting Policies

Product Revenues, Net, page 8

3. You disclose the Company sells TYMLOS to a limited number of wholesalers in the U.S (collectively, its "Customers"). Please tell us when payment is typically due from these Customers. Refer to ASC 606-10-50-12b.

Product Returns, page 9

4. Please tell us the shelf life of TYMLOS and your product return policy.

Management's Discussion and Analysis of Financial Condition and Results of Operations
Results of Operations

Nine Months Ended September 30, 2017 and 2016

Cost of Sales, page 34

- 5. Please tell us the following as they relate to your sales of TYMLOS:
 - The amount of revenues recognized during the periods presented for the inventories that were previously expensed as research and development expenses;
 - The estimated revenues represented by the inventories on hand at June 30, 2017 and September 30, 2017 for which the manufacturing costs were previously expensed as research and development expenses;
 - The expected timing for which you will finish selling the previously expensed inventories; and
 - The estimated gross margin percentage after the previously expensed inventories are sold.

In closing, 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.

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You may contact Keira Nakada at 202-551-3659 or Sharon Blume at 202-551-3474 with any questions.

Division of Corporation Finance Office of Healthcare & Insurance