



DIVISION OF
CORPORATION FINANCE

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

Mail Stop 4546

February 27, 2017

Anatoly Dritschilo, M.D.
Chief Executive Officer
Shuttle Pharmaceuticals, Inc.
1 Research Court, Suite 450
Rockville, Maryland 20850

**Re: Shuttle Pharmaceuticals, Inc.
Amendment No. 1 to Registration Statement on Form S-1
Filed February 13, 2017
File No. 333-215027**

Dear Dr. Dritschilo:

We have reviewed your amended 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 amending your registration statement and providing the requested information. 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 any amendment to your registration statement and the information you provide in response to these comments, we may have additional comments. Unless we note otherwise, our references to prior comments are to comments in our January 7, 2017 letter.

Prospectus Cover Page

1. Please revise to clarify whether the minimum sale contingency, which was added in response to prior comment 1, will result in the sale of a number of shares sufficient to meet the Nasdaq listing requirements you reference in the first paragraph.
2. Expand your response to prior comment 2 to provide a legal analysis of the facts and circumstances that led you to conclude that S5 Capital Group is not a broker within the meaning of Section 3(a)(4)(A) of the Exchange Act. For instance, in your response, please explain whether either S5 Capital Group or Mr. Starkweather, in the course of his consulting business as described on page 65 or otherwise, help structure prospective securities transactions, help issuers to identify potential purchasers of securities or solicit securities transactions.

Overview, page 4

3. Please briefly explain how your candidates “use a new and unique mechanism of action” such that they meet the definition added in response to prior comment 3. In addition, please expand the “Competition” section of your filing to identify the product candidates and processes that your competitors have developed or are developing, as you note on page 55.

Capitalization, page 42

4. Refer to your response to prior comment 7. Please tell us why you continue to show a balance for pro forma as adjusted long-term debt, since you also state that the pro forma reflects the conversion of this debt.

Business, page 47

5. We note your revised disclosure and your response to comment 9. Please include in your disclosure how the results will be measured and the date the IND was filed.

Financial Statements for the Fiscal Year Ended December 31, 2015

Notes to Financial Statements

Note 3 Summary of Significant Accounting Policies

Research and Development Expenses, page F-8

6. Please refer to prior comment 16. Disclose the amount of reimbursements received as of the most recent balance sheet date that have been deducted from costs, clarifying if the amount is deducted from research and development or other line items on the Statements of Operations.
7. With respect to the Department of Health and Human Services contract, you state on page F-9 that you recognize the amounts under the contracts when it is probable that all attaching conditions will be complied with. Describe these conditions and tell us your basis for the timing of recognizing these amounts. Refer to ASC 730-20-50.
8. Refer to your response to the prior comment 17. Disclose the value of the subcontracts and the amounts of reimbursements charged as of the most recent balance sheet date.

Financial Statements for the Quarterly Period Ended September 30, 2016

Balance Sheets, page F-12

9. Refer to your response to comment 18. Tell us why it is appropriate to retroactively reclassify December 31, 2015 equity information to present members’ equity as a one line item. Cite the relevant accounting guidance to support your presentation.

Anatoly Dritschilo, M.D
Shuttle Pharmaceuticals, Inc.
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You may contact Keira Nakada at (202) 551-3659 or Mary Mast at (202) 551-3613 if you have questions regarding comments on the financial statements and related matters. Please contact Jeffrey Gabor at (202) 551-2544 or Mary Beth Breslin at (202) 551-3625 with any other questions.

Sincerely,

/s/ Mary Beth Breslin for

Suzanne Hayes
Assistant Director
Office of Healthcare and Insurance

cc: Dale S. Bergman, Esq.
Gutiérrez Bergman Boulris, PLLC