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

DIVISION OF
CORPORATION FINANCE

October 11, 2019

Anatoly Dritschilo
Chief Executive Officer
Shuttle Pharmaceuticals Holdings, Inc.
One Research Court, Suite 450
Rockville, MD 20850

Re: Shuttle Pharmaceuticals Holdings, Inc.
Draft Registration Statement on Form S-1
Submitted September 16, 2019
CIK No. 0001757499

Dear Dr. Dritschilo:

We have reviewed your 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.

Draft Registration Statement on Form S-1

Cover Page

1. We note your statement in footnote (4) that this registration statement also covers under a separate prospectus the resale of shares of common stock issuable upon conversion of Series A Preferred Stock and issuable upon exercise of warrants. However, there does not appear to be a separate prospectus relating to these shares. Please revise or advise. Please also identify the selling stockholders and the number of shares being offered for resale by each in the table on page 89.

2. On the prospectus cover page please state clearly that this is a minimum-maximum offering, disclose any minimum purchase requirements, if applicable, and any arrangements to place the funds in escrow, trust, or similar account. Refer to Item

501(b)(8)(ii)-(iii) of Regulation S-K. To the extent the offering will be a firm commitment underwritten offering, please revise the cover page and throughout accordingly.

3. Please revise to clarify whether the selling shareholders intend to sell their shares at the same price the company is selling shares.

Prospectus Summary, page 1

4. Please revise throughout to remove any inference regarding the safety and efficacy of your product candidates. Given that the determination of a product's safety and efficacy is solely within the FDA's authority and your product candidates have not yet completed clinical trials, these inferences are not appropriate. We note by way of example statements that "[t]hese data are interpreted as demonstrating safety for use of IPdR in humans for efficacy testing in clinical trials in combination with RT" on page 3; and disclosure regarding "[e]vidence of efficacy from Phase II clinical trials" on page 6.

5. Please revise the summary to disclose that your subsidiary, Shuttle Pharmaceuticals, Inc., conducted a min-max initial public offering in 2017 but did not meet the minimum and therefore terminated the offering without selling any shares.

6. Given your early stage of development, please revise the second paragraph on page 3 to remove any implication that you hope or expect to receive FDA approval by a particular date.

Implications of Being an Emerging Growth Company, page 9

7. Please provide us with copies of all written communications, as defined in Rule 405 under the Securities Act, that you, or anyone authorized to do so on your behalf, present to potential investors in reliance on Section 5(d) of the Securities Act, whether or not they retain copies of the communications.

The Offering, page 11

8. Please explain the reference to your officers and directors relying on Rule 3a4-1 in offering the shares on your behalf. This is inconsistent with the disclosure elsewhere that you will engage an underwriter.

Use of Proceeds, page 41

9. We note your disclosure that you intend to use the proceeds of this offering to further the development of your ropidoxuridine and doranidazole product candidates. Please specify how far in the development of each of the listed clinical trials you expect to reach with the proceeds of the offering. If any material amounts of other funds are necessary to accomplish the specified purposes, state the amounts and sources of other funds needed for each specified purpose and the sources. Refer to Instruction 3 to Item 504 of Regulation S-K.

Dilution, page 43

10. Please disclose dilution to current shareholders if 28%, 50%, 75% and 100% of the offering is sold.

Business
DORANIDAZOLE, page 61

11. Please disclose the aggregate milestone payments and royalty rates (or royalty range) to be paid under the Pola License Agreement.

Doranidazole, page 68

12. Based on the pipeline on page 51, it appears that doranidazole is currently in Phase I clinical trials. However, the second table on page 68 shows the trial for doranidazole in Phase 3 and states as follows: "1st Phase 3 study completed." Please revise for consistency or advise.

Executive Compensation
Summary Compensation Table, page 87

13. Please revise the last column in the summary compensation table to reflect the total amounts paid to your named executive officers.

Description of Capital Stock, page 92

14. We note that your forum selection provision in your certificate of incorporation identifies the Court of Chancery of the State of Delaware as the exclusive forum for certain litigation, including any “derivative action.” Please disclose whether this provision applies to actions arising under the Securities Act or Exchange Act. In that regard, we note that Section 27 of the Exchange Act creates exclusive federal jurisdiction over all suits brought to enforce any duty or liability created by the Exchange Act or the rules and regulations thereunder, and Section 22 of the Securities Act creates concurrent jurisdiction for federal and state courts over all suits brought to enforce any duty or liability created by the Securities Act or the rules and regulations thereunder. If the provision applies to Securities Act claims, please also revise your prospectus to state that there is uncertainty as to whether a court would enforce such provision and that investors cannot waive compliance with the federal securities laws and the rules and regulations thereunder. If this provision does not apply to actions arising under the Securities Act or Exchange Act, please also ensure that the exclusive forum provision in the governing documents states this clearly, or tell us how you will inform investors in future filings that the provision does not apply to any actions arising under the Securities Act or Exchange Act. Please also reconcile this forum selection provision with the provision in your bylaws which designates the federal district court for the District of Delaware if no state court in Delaware has jurisdiction.

Underwriting, page 95

15. We note your disclosure on page 96 that the "underwriters agreed to purchase all of the shares offered by this prospectus ... if any are purchased." We also note disclosure on page 11 that this offering is "being conducted on a 'best efforts' basis." Please revise here and throughout the prospectus for consistency or advise.

16. We note your references to the escrow agreement on page 11. Please describe the material terms of the agreement. In addition, please clarify, if true, that to the extent the offering is terminated without satisfying the minimum offering contingency, escrowed funds will be promptly returned to investors.

Report of Independent Registered Public Accounting Firm, page F-2

17. While you provide 2017 and 2018 financial statements for Shuttle Pharmaceutical Holdings, Inc., the audit report for Shuttle Pharmaceutical Holdings, Inc. only covers the fiscal year ended December 31, 2018. Please provide an audit report for Shuttle Pharmaceutical Holdings, Inc. that covers the fiscal year ended December 31, 2017.

Note 1 – Organization and Basis of Presentation
Basis of Presentation, page F-9

18. You state on pages F-8 and F-9 that the “company,” initially formed as Shuttle Pharmaceuticals, LLC, became Shuttle Pharmaceuticals, Inc. in 2016, and changed its name to Shuttle Pharmaceuticals Holdings, Inc. in 2018. On page 54, you state that Shuttle Pharmaceuticals, LLP became Shuttle Pharmaceuticals, Inc. in 2017. You further state that Shuttle Pharma Acquisition Corp. changed its name to Shuttle Pharmaceuticals Holdings, Inc. after acquiring Shuttle Pharmaceuticals Inc., in 2018. Please resolve the discrepancies between these disclosures and clearly describe the basis for the financial statements that are presented.

Recapitalization, page F-9

19. Please revise to describe the purpose of the recapitalization involving the company and Shuttle Pharma Acquisition Corp. and your accounting for the transaction. Tell us whether this transaction involved entities under common control.

Note 3 – Summary of Significant Accounting Policies
Research and Development Expenses, page F-10

20. Please revise to describe the conditions for receiving contract awards resulting in negative R&D expenses recognized in certain periods.

Fair Value of Financial Instruments, page F-12

21. You state on page F-17 that you issued 3,600,000 shares of common stock for cash of $36

or at $0.01 per share. Please tell us how you considered this issuance in your 2018 valuation of common stock at $10.26 per share.

Part II

Item 15. Recent Sales of Unregistered Securities, page II-1

22. We note your reference to "the following transactions" in this section, but there are no transactions listed. Please revise.

Item 17. Undertakings, page II-2

23. Please revise the undertakings language in section 1(b) to match the language set forth in Item 512(a)(1)(ii) of Regulation S-K. In addition, include the undertaking required by Item 512(a)(6) of Regulation S-K or advise.

Signatures, page II-3

24. Please revise your signatures section to comply with Form S-1 requirements.

Exhibits

25. Please revise your exhibit list and file a list of your subsidiaries as an exhibit to your registration statement. Refer to Item 601 of Regulation S-K. In addition, revise the exhibit list to add the underwriting agreement referenced on page 95.

26. We note your references to strategic agreements with Brown University, University of Virginia, George Washington University and Propagenix, Inc. If these agreements are material, please file them as exhibits to your registration statement and describe their material terms in the business section.

General

27. Please revise to include the dealer prospectus delivery obligation. Refer to Item 502(b) of Regulation S-K.

You may contact Keira Nakada at (202) 51-3659 or Sharon Blume, Accounting Branch Chief, at (202) 551-3474 if you have questions regarding comments on the financial statements and related matters. Please contact Tonya K. Aldave at (202) 551-3601 or Justin Dobbie, Legal Branch Chief, at (202) 551-3469 with any other questions.

Sincerely,

Division of Corporation Finance
Office of Life Sciences

cc: Megan Penick, Esq.