



DIVISION OF
CORPORATION FINANCE

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

January 16, 2026

Christopher Cooper
Interim Chief Executive Officer
Shuttle Pharmaceuticals Holdings, Inc.
401 Professional Drive, Suite 260
Gaithersburg, MD 20879

**Re: Shuttle Pharmaceuticals Holdings, Inc.
Registration Statement on Form S-1
Response dated December 29, 2025
File No. 333-291628**

Dear Christopher Cooper:

We have reviewed your December 29, 2025 response to our comment letter and have the following comment. If you do not believe our comment applies to your facts and circumstances, please tell us why in your response.

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

Response dated December 29, 2025

General

1. We note your response to our prior comment. Please provide us with the following information:
 - Tell us how you will account for the acquisition.
 - Your disclosure says that you acquired substantially all of the assets and liabilities of Molecule.ai. Please confirm whether you acquired the legal entity of Molecule.ai.
 - Please confirm whether the software platform you acquired was ready to use upon acquisition.
 - Please describe any arrangements you have with Zhitian (Andy) Zhang to provide post-acquisition services to your company.
 - Please provide an estimate of the additional development costs you expect to be incurred on the software platform post-acquisition compared to the costs incurred prior to acquisition.

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Please contact Alan Campbell at 202-551-4224 or Laura Crotty at 202-551-7614 with any questions.

Sincerely,

Division of Corporation Finance
Office of Life Sciences

cc: Aaron M. Schleicher, Esq.