

April 7, 2025

Charles Wagner
Executive Vice President and Chief Financial Officer
Vertex Pharmaceuticals, Inc.
50 Northern Avenue
Boston, MA 02210

Re: Vertex Pharmaceuticals, Inc.
Form 10-K for Fiscal Year Ended December 31, 2024
Filed February 13, 2025

Dear Charles Wagner:

We have reviewed your filing and have the following comments.

Please respond to this letter 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 a 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.

Form 10-K For Fiscal Year Ended December 31, 2024
Item 1. Business
Commercialization of CF Medicines, page 11

1. We note your disclosure that ALYFTREK carries a lower royalty burden than your other CF medicines. However, we also note from your disclosure on page 58 that there may be uncertainty regarding the calculations of royalties that you will pay on ALYFTREK to a third-party under the agreement with the Cystic Fibrosis Foundation and that you could be required to pay a higher royalty percentage on ALYFTREK sales than you currently expect. If you expect patients to switch from TRIKAFTA to ALYFTREK, please quantify in your future filings your current royalty burden on TRIKAFTA, your primary CF medicine, and, given the uncertainty described on page 58, provide an upper and lower bounded range of the royalty burden on ALYFTREK depending on the outcome of the calculations of the royalties that will be payable on ALYFTREK. Cystic Fibrosis Foundation, page 15

2. We note your collaboration agreement with the Cystic Fibrosis Foundation results in the payment of a material amount of royalties. We also note your disclosure that,
April 7, 2025
Page 2

pursuant to the agreement, sales of combination products, such as TRIKAFTA/KAFTRIO, are allocated equally to each of the active pharmaceutical ingredients in the combination product, and royalties are then paid for any royalty-bearing components included in the combination. In future filings, please revise to disclose the duration of the royalty terms associated with the active pharmaceutical ingredients in your material combination products, such as TRIKAFTA/KAFTRIO, pursuant to this collaboration agreement.

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.

Please contact Tracie Mariner at 202-551-3744 or Kevin Vaughn at 202-551-3494 if you have questions regarding comments on the financial statements and related matters. Please contact Joshua Gorsky at 202-551-7836 or Tim Buchmiller at

202-551-3635
with any other questions.

Corporation Finance
Sciences

Sincerely,
Division of
Office of Life