

August 12, 2024

Jeffrey Poulton
Chief Financial Officer
Alnylam Pharmaceuticals, Inc.
675 West Kendall Street
Henri A. Termeer Square
Cambridge, MA 20142

Re: Alnylam Pharmaceuticals, Inc.
Form 10-K for the Fiscal Year Ended December 31, 2023
Filed February 15, 2024
File No. 001-36407

Dear Jeffrey Poulton:

We have limited our review of your filing to the financial statements and related disclosures 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 the Fiscal Year Ended December 31, 2023
Notes to Consolidated Financial Statements
4. Net Revenues from Collaborations, page 107

1. We note your tabular disclosure at the bottom of page 107 that quantifies the research and development (R&D) expenses incurred by collaborator and type that are directly attributable to your collaboration agreements. Please explain to us how this disclosure relates to your net revenues from collaborations. Using the Roche collaboration as an example, your disclosure on page 110 indicates that you recognized collaboration revenue of \$24 million during 2023 related to your Development Services Obligation. Please explain how this amount relates to the \$44.6 million in total R&D expenses attributed to the Roche collaboration as disclosed on page 107. In addition, to the extent applicable, please explain how the \$547 million additional variable consideration attributed to cost reimbursement from development and manufacturing services and technology transfer related to the Roche Performance Obligations was calculated.

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2. Please explain the circumstances that resulted in a reversal of revenue in the amount of \$15.5 million related to your Regeneron C5 License Obligation during 2023 as disclosed on page 113. 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.

Please contact Frank Wyman at 202-551-3660 or Angela Connell at 202-551-3426 with any questions.

Sincerely,
Division of
Office of Life

Corporation Finance
Sciences