ARYA Sciences Acquisition Corp III 51 Astor Place, 10th Floor New York, NY 10003

April 23, 2021

VIA EDGAR

Securities and Exchange Commission Division of Corporation Finance Office of Life Sciences 100 F Street, NE Washington, D.C. 20549 Attention: Abby Adams and Joe McCann

Re: ARYA Sciences Acquisition Corp III

Registration Statement on Form S-4

Filed March 26, 2021

Amendment No. 1 to Registration Statement on Form S-4

Filed April 7, 2021 File No. 333-254796

Dear Ms. Adams and Mr. McCann:

This letter sets forth responses of ARYA Sciences Acquisition Corp III ("ARYA") to the comments of the staff of the Division of Corporation Finance (the "Staff") of the U.S. Securities and Exchange Commission set forth in your letter, dated April 20, 2021, with respect to the above referenced Registration Statements on Form S-4 (the "Registration Statement").

The text of the Staff's comments has been included in this letter for your convenience, and we have numbered the paragraphs below to correspond to the numbers in the Staff's letter. For your convenience, we have also set forth ARYA's response to each of the numbered comments immediately below each numbered comment.

In addition, ARYA has revised the Registration Statement in response to the Staff's comments and ARYA is concurrently filing a revised Registration Statement with this letter. Page numbers in the text of ARYA's responses correspond to page numbers in the Registration Statement, as so amended.

Registration Statement on Form S-4 filed March 26, 2021

Did the ARYA Board obtain a third-party valuation or fairness opinion...?, page viii

 Staff's Comment: We note the revised disclosure in response to prior comments 1 and 7. With reference to the disclosures on pages 105 and 114-115, please revise the disclosure to clarify that the Board valued Nautilus based on the valuation of one company that the Board deemed comparable.

Response: ARYA acknowledges the Staff's comment and has revised the disclosure on pages 105 and 115.

Background to the Business Combination, page 103

2. Staff's Comment: Please revise to disclose the date when ARYA received the Nautilus Forecasts.

Response: ARYA acknowledges the Staff's comment and has revised the disclosure on page 107.

3. **Staff's Comment:** Please revise the disclosure on page 105 to clarify whether the ARYA Board or a third- party derived the \$925 million valuation ascribed to Seer, Inc. and whether this was a pre- or post-IPO valuation.

Response: ARYA acknowledges the Staff's comment and has revised the disclosure on page 105.

Certain Company Projected Financial Information, page 112

4. **Staff's Comment:** We note the disclosure added to page 114 concerning the Board's consideration of financial projections in a potential upside scenario. Please revise to disclose whether these upside scenario projections were prepared by Nautilus or ARYA. With a view to disclosure, please tell us whether the Board considered financial projections in a potential downside scenario. Revise the Background to the Business Combination section, if applicable, to indicate when any upside or downside scenario projections were provided to the Board.

Response: ARYA acknowledges the Staff's comment and has revised the disclosure on page 114. ARYA respectfully advises the Staff that there were no potential downside scenario financial projections provided to the ARYA Board.

5. **Staff's Comment:** We note your disclosure on page 112 indicating that the projections reflect numerous qualitative estimates and assumptions. Please tell us, and if applicable, revise to indicate, whether there were material qualitative estimates and assumptions made beyond the stated expectation regarding adoption of a three-phase plan for commercialization. Also revise to clarify the time frames for the three phases underlying the disclosed projections.

Response: ARYA acknowledges the Staff's comment and respectfully advises the Staff that there were no material qualitative estimates and assumptions made beyond the stated expectation regarding adoption of a three-phase plan for commercialization. In addition, the Company has added disclosure to clarify the time frames for the three phases underlying the disclosed projections on page 112.

6. **Staff's Comment:** We note the disclosure that the Nautilus Forecasts were prepared solely for internal use, capital budgeting and other management purposes, and were not intended for third-party use, including by investors or holders. Please revise to clarify whether the projections were intended for use by the ARYA Board.

Response: ARYA acknowledges the Staff's comment and has revised the disclosure on page 113.

Comparable Company Analysis, page 114

7. **Staff's Comment:** Revise to indicate whether the Board used this analysis to calculate an implied enterprise value for Nautilus as well as estimated EV/Revenue figures. Also, include Nautilus in the table (or an adjacent one) to show Nautilus' Revenue and Revenue Growth figures for these same years.

Response: ARYA acknowledges the Staff's comment and has revised the disclosure in order to clarify that the ARYA Board used the comparable company analysis to calculate an implied equity value for Nautilus. ARYA has also included Nautilus' Revenue and Revenue growth figures in the table with the comparable companies. These estimated Revenue figures for Nautilus were provided to ARYA by Nautilus and were used to compare Nautilus to the selected companies.

8. **Staff's Comment:** Revise to clarify how the analysis in this section relates, if at all, to the \$925 million implied equity valuation of Seer, Inc., and how it supports a \$900 million equity valuation for Nautilus.

Response: ARYA acknowledges the Staff's comment and added disclosure that explains how the implied equity valuation of approximately \$923 million of Seer, Inc. supported the \$900 million equity valuation of Nautilus.

9. *Staff's Comment:* Please explain why the Board decided to use the valuation of a single company as opposed to the median of the three highlighted companies that the Board identified as similar life sciences tools providers. Also, explain how the Board determined that Seer, Inc. was the most comparable company as opposed to 908 Devices, Inc. If known, please disclose the equity valuation ascribed to 908 Devices, Inc.

Response: ARYA acknowledges the Staff's comment and has revised the disclosure in order to clarify how the ARYA Board came to the conclusion that Seer, Inc. was the most comparable company, including the three companies highlighted. Additionally, ARYA respectfully advises the Staff that 908 Devices, Inc. had not yet priced their initial public offering at the time the \$900 million equity valuation was agreed to by the parties.

Material U.S. Federal Income Tax Considerations, page 154

10. *Staff's Comment:* We note that the opinion of counsel, filed as Exhibit 8.1, is limited to the "Effect of the Domestication on U.S. Holders". Please have counsel provide a tax opinion that also covers the effects of Section 367(b), PFIC considerations, and the effects of exercising redemption rights, or advise. Also it is unclear to us how an opinion that addresses the effect of the Domestication is meaningful to investors where the opinion is "subject to the PFIC" rules. In this regard, it appears that the tax consequences depend upon the application of the PFIC rules and the company discloses that it likely will be considered a PFIC for the current tax year. Refer to Section III.A.2 and III.C.3 of Staff Legal Bulletin No. 19 for additional guidance.

Response: In accordance with Section III of Staff Legal Bulletin No. 19, ARYA has filed a revised opinion of counsel and has revised the disclosure to more clearly state that Kirkland & Ellis LLP is unable to opine on the effects of 367(b), ARYA's status as a PFIC and the application of Section 1291(f) due to the the inherently factual nature of the analysis or the uncertainty in the application of the law.

In accordance with Section III of Staff Legal Bulletin No. 19, ARYA has not provided an opinion that covers the effects of exercising redemption rights because the disclosure provides that the redemption is expected to be a taxable transaction.

We hope that the foregoing has been responsive to the Staff's comments. If you have any questions related to this letter, please contact Christian O. Nagler at (212) 446-4660 and Peter S. Seligson at (212) 446-4756 of Kirkland & Ellis LLP.

Sincerely,

By: /s/ Adam Stone

Name: Adam Stone

Title: Chief Executive Officer

Via E-mail:

cc: Christian O. Nagler

Peter S. Seligson

Kirkland & Ellis LLP

Robert F. Kornegay Michael Nordtvedt Brian Keyes Zachary B. Myers

Wilson Sonsini Goodrich & Rosati, P. C.