April 20, 2021

Adam Stone Chief Executive Officer ARYA Sciences Acquisition Corp III 51 Astor Place, 10th Floor New York, NY 10003

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 Mr. Stone:

We have reviewed your 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  $% \left( 1\right) =\left\{ 1\right\} =\left\{ 1\right$ 

understand your disclosure.

 $\hbox{ Please respond to this letter by amending your registration statement and providing the } \\$ 

requested information. 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.

 $\label{eq:After reviewing any amendment to your registration statement and the information you$ 

provide in response to these comments, we may have additional comments.

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

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

1. 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.

Background to the Business Combination, page 103

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3. 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.

Certain Company Projected Financial Information, page 112

4. We note the disclosure added to page 114 concerning the Board's consideration of

 $\label{eq:constraint} \mbox{financial projections in a potential upside scenario. Please revise to \\ \mbox{disclose whether}$ 

these upside scenario projections were prepared by Nautilus or ARYA. With a view to  $% \left( 1\right) =\left( 1\right) +\left( 1\right)$ 

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. We note your disclosure on page 112 indicating that the projections 5. 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. We note the disclosure that the Nautilus Forecasts were prepared 6. 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 AYRA Board. Comparable Company Analysis, page 114 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. 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. 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 FirstName LastNameAdam Stone sciences tools providers. Also, explain how the Board determined that Seer, Inc. was the Comapany Sciences Acquisition mostNameARYA comparable company as opposed toCorp 908III Devices, Inc. If known, please disclose the equity April 20, 2021 valuation Page 2 ascribed to 908 Devices, Inc. FirstName LastName Adam Stone FirstName LastNameAdam ARYA Sciences AcquisitionStone Corp III Comapany April NameARYA Sciences Acquisition Corp III 20, 2021 April 320, 2021 Page 3 Page FirstName LastName Material U.S. Federal Income Tax Considerations, page 154 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.
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.

Refer to Rules 460 and 461 regarding requests for acceleration. Please allow adequate time for us to review any amendment prior to the requested effective date of the registration statement.(202) 551-3652 or Vanessa Robertson at (202) 551-3649 if you have questions regarding comments on the financial statements and related matters. Please contact Abby Adams at (202) 551-6902 or Joe McCann at (202) 551-6262 with any other questions.

Sincerely,

Division of

Corporation Finance

Office of Life

Sciences

cc: Peter Seligson, Esq.