June 30, 2021

Suzanne Hayes
Margaret Schwartz
Michael Fay
Jean Baker
Office of Life Sciences
Division of Corporation Finance
Securities and Exchange Commission
100 F Street, N.E.
Washington, D.C. 20549

Re: Alpha Healthcare Acquisition Corp.
Registration Statement on Form S-4
Filed March 23, 2021, Amendment No. 1 Filed June 14, 2021
File No. 333-254597

Dear Ms. Hayes:

This letter is submitted on behalf of Alpha Healthcare Acquisition Corp. (the "**Company**") in response to comments of the staff of the Division of Corporation Finance (the "**Staff**") of the U.S. Securities and Exchange Commission (the "**Commission**") with respect to the Company's Amendment No. 1 to Registration Statement on Form S-4, filed on June 14, 2021 (the "**Registration Statement**"), as set forth in the Staff's letter dated June 24, 2021 to Rajiv Shukla, the Company's Chief Executive Officer and Chairman (this "**Comment Letter**"). The Company is concurrently filing its Amendment No. 2 to Registration Statement on Form S-4 (the "**Amended Registration Statement**"), which includes changes to reflect responses to the Staff's comments and other updates.

For reference purposes, the text of this Comment Letter has been reproduced and italicized herein with the response below the numbered comment. Unless otherwise indicated, the page reference in the description of the Staff's comment refers to the Registration Statement, and the page reference in the response refers to the Amended Registration Statement. All capitalized terms used and not otherwise defined herein shall have the meanings set forth in the Amended Registration Statement. The response provided herein is based upon information provided to Goodwin Procter LLP by the Company.

Amendment No. 1 to Registration Statement on Form S-1, Filed June 14, 2021
Risk Factors
Risks Related to Humacyte's Business and Industry
Risks Related to the Development and Commercialization of Our Product Candidates
If SAEs occur or other unacceptable side effects are identified in our HAV's we may need to delay, abandon or limit development..., page 27

1. We note your response to our prior comment number 7 and the revisions to page 29, where you state that the most frequently reported SAEs related to the HAV for hemodialysis access were vascular graft thrombosis, vascular graft complications, and venous stenosis, and the most frequently reported SAEs related to the HAV for PAD were vascular graft complication and graft thrombosis. Please disclose all SAEs, rather then the most frequently reported SAEs and disclose the number of occurrences. Please provide similar disclosure with respect to the SAEs experienced in your V006 trial where you mention severe infections on page 184.

RESPONSE: The Company respectfully advises the Staff that it has updated the Amended Registration Statement on pages 29, 30, 185 and 190 and in response to the Staff's comment to include a list of all SAEs experienced.

Opinion of AHAC's Financial Advisor
Certain Projected Financial Information, page 87

2. We have reviewed your revised disclosure in response to prior comment 17 and have the following additional comments:

● *As previously requested, with specific reference to the significant length of the projections and Humacyte's current status as a clinical stage company with limited operations and no approved products, please expand your disclosures to address how management and the Board determined the reasonableness of the projections. Specifically, address the reliability of the projections related to the later years presented;*

● *Identify the assumptions and estimates underlying the four bullet points on page 87;*

● *Expand your disclosures to provide additional information surrounding the specific assumptions and estimates underlying the forecasted information on page 88 to provide investors with sufficient information to evaluate the projected financial information and its reasonableness. For example:*

o Identify the market and geographical regions for the revenue projections and the specific market growth rates and projected market rate penetrations to help provide additional insight into the range in these rates underlying the revenue projections. Explain how the market rate growth and market rate penetrations were determined. Explain the basis for assuming growth rates over such an extended period of time;

o Explain to us the extent you have considered providing separate projected financial information for each group of product candidates based on their stage of development given the significant differences in probability rates;

o Explain how projected cost of goods sold were determined. In this regard, while you indicate they were based on current production costs, we note that you have not yet manufactured commercial products and the manufacture of your product is complex;

o Explain what you mean by "…product candidates projected to be developed during the time frame of the projections as well as other research programs." Are these yet to be identified projects and programs? If so, explain in more detail the assumptions underlying these projected costs; and

o Please explain in more detail the specific assumptions underlying the sales and marketing and general and administrative expenses; and

● *Relabel the line item "net income" to "unlevered net income". Disclose the amount of interest expense excluded from such measure for each period presented or if such amounts cannot be estimated, explain why not.*

RESPONSE: The Company respectfully advises the Staff that it has updated the Amended Registration Statement on pages 87 – 89 in response to the Staff's comment. The Company further advises the Staff that Humacyte did consider providing separate projected financial information on a product candidate by product candidate basis, but elected to provide on an aggregated basis because many key areas of operation and expense, including production development, manufacturing operations and sales and marketing, are shared among the different product candidates.

Information about AHAC, page 146

3. We note your reference to backstop agreements that you may enter into on page 153. Please revise to state whether you have any present intent to enter backstop agreements and, if so, describe purpose of such agreements and likely parties if known.

RESPONSE: The Company respectfully advises the Staff that it has updated the Amended Registration Statement on page 154 to remove the reference to backstop agreements as the Company will not be entering into any backstop agreements in connection with the Business Combination.

Information about Humacyte
Our Clinical and Pre-Clinical Stage Product Pipeline, page 173

4. *We note your response to our prior comment number 28. Please remove the sentence added directly below the table comparing your product to ePTFE and Procol on page 187 or revise it to remove the comparison given these are not head-to-head studies. Additionally, we note the new disclosure on pages 181-182 regarding your V001 and V003 trials, the disclosure on pages 183-186 regarding your V0006 trial, and the last sentence on page 186 and related graphic on page 187 regarding your V007 trial, in each case, comparing either your technology or, with respect to the disclosure on pages 183- 186, the Eptfe results in your V006 trial, to published studies. Because such data was not based on head to head studies, please revise your disclosure here and comparisons elsewhere to eliminate the comparison. You may retain any comparison based on the results of the head-to-head comparison conducted in your V006 trial.*

RESPONSE: The Company respectfully advises the Staff that it has updated the Amended Registration Statement on pages 182 – 188 in response to the Staff's comment to remove comparisons to published studies.

Proposed Indication #2: Use of the HAV for Arteriovenous Access for Hemodialysis, page 179

5. Please provide p-values for the results of your V006 and V004 trials, mentioned on pages 182-186 and 189 or explain why you are unable to provide such values.

RESPONSE: The Company respectfully advises the Staff that no p-values are available for the results of the V006 and V004 trials. The V006 trial was a non-inferiority study, the aim of which is to demonstrate that a product candidate is not worse than a comparator using the cox proportional hazards test, the results of which were presented in the Amended Registration Statement. The V004 trial was a single-arm study with no comparator arm, therefore there are no statistical measures and no p-value.

6. We note your reference on page 183 concerning the safety advantage of the HAV over ePTFE. Please revise this statement to remove implication that your product candidates are safe, including as compared to an approved device, as this determination is solely within the authority of the FDA and comparable regulatory bodies.

RESPONSE: The Company respectfully advises the Staff that it has updated the Amended Registration Statement on page 184 in response to the Staff's comment.

Proposed Indication #3: Peripheral Arterial Disease, page 18

7. We note your response to our prior comment number 29. Please revise page 188 to quantify the participant results that were excluded due to death and clarify whether such deaths were deemed to be related to your product candidates.

RESPONSE: The Company respectfully advises the Staff that it is updated the Amended Registration Statement on page 188 in response to the Staff's comment to specify the number of deaths and whether such deaths were deemed related to the product candidates.

Management of the Combined Company, page 271

8. Please provide the information required by Item 18(a)(7) of Form S-4 for Todd Pope and a file his consent as appropriate pursuant to Rule 438 of Regulation C under the Securities Act.

RESPONSE: The Company respectfully advises the Staff that it has updated the Amended Registration Statement on pages 275 – 276 in response to the Staff's comment and has filed Mr. Pope's consent pursuant to Rule 438 of Regulation C under the Securities Act.

Financial Statements of Humacyte, Inc.
14. Subsequent Events, page F-71

9. We have reviewed your revised disclosure in response to prior comment 36. Please update your disclosure on page 228 to disclose the fair value of your common stock underlying your January 2021 stock option grants and how such fair value was it was determined. In addition, tell us how this fair value compares to the Equity Value Reference Range as determined by AHAC's Financial Advisor and address the reasons underlying any differences.

RESPONSE: The Company respectfully advises the Staff that it has updated the Amended Registration Statement on page 229 in response to the Staff's comment.

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Should you have any further comments or questions with regard to the foregoing, please contact the undersigned at (617) 570-1879.

Sincerely,

/s/ Laurie A. Burlingame
Laurie A. Burlingame, Esq.

cc: Rajiv Shukla, *Alpha Healthcare Acquisition Corp.*
Kerry S. Burke, *Covington & Burling LLP*
Brian K. Rosenzweig, *Covington & Burling LLP*