June 11, 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
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 Registration Statement on Form S-4, filed on March 23, 2021 (the "**Initial Registration Statement**"), as set forth in the Staff's letter dated April 22, 2021 to Rajiv Shukla, the Company's Chief Executive Officer and Chairman (this "**Comment Letter**"). The Company is concurrently filing its Amendment No. 1 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 Initial 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.

Registration Statement on Form S-4, Filed March 23, 2021

Summary
Board's Reasons for the Business Combination, page 3

1. *We note your statement on page 3 that "[t]he Board considered that Humacyte can seek accelerated approval for its bioengineered human, acellular tissue-based vessels ("HAVs") relating to vascular trauma." Please remove any implication that Humacyte will receive approval on an accelerated basis and clarify that they might not receive approval at all. You may instead explain the significance of receiving Fast Track designation. Please also revise to explain the significance of a priority designation under Public Law 115-92 and an RMAT designation by the FDA.*

RESPONSE: The Company respectfully advises the Staff that it has removed any implication that Humacyte will receive approval on an accelerated basis on pages 3 and 80 of the Amended Registration Statement in response to the Staff's comment, and has further indicated that each of these designations may allow for an accelerated development pathway.

2. *We note your heading on page 3: "Anticipated product launch for trauma and short vessel trauma in 2023, AV access in 2023 and PAD in 2025." Please revise to remove any implication that Humacyte's product candidates will receive regulatory approval.*

RESPONSE: The Company respectfully advises the Staff that it has revised the disclosure on pages 3 and 81 of the Amended Registration Statement in response to the Staff's comment.

3. *Please revise to explain the meaning of patient years of data on page 4 and clarify that the measure whether it provides information about long term performance.*

RESPONSE: The Company respectfully advises the Staff that it has revised the disclosure on pages 5 and 82 of the Amended Registration Statement in response to the Staff's comment, clarifying the meaning of patient years and noting that patient years do not provide any information about long term performance.

Interests of the Sponsor and AHAC's Directors and Officers in the Business Combination, page 10

4. *Please revise the sixth bullet point to quantify the value of all shares held by the Sponsor and initial shareholders that will become worthless if you fail to consummate an initial business transaction within 24 months of the close of the Initial Public Offering.*

RESPONSE: The Company respectfully advises the Staff that it has revised the disclosure on pages 12 and 90 of the Amended Registration Statement in response to the Staff's comment and will provide the value of such securities as of the Record Date, which has not yet been determined.

5. *In the eighth bullet point, please confirm that in the event outstanding loans to the Sponsor, AHAC's officers or directors or affiliates are converted into units, that such units would be redeemable by AHAC under the same terms as warrants issued as components of the units sold in the Initial Public Offering. If they are not redeemable, please revise the statement that units would be identical to the units issued in the Initial Public Offering.*

RESPONSE: The Company respectfully advises the Staff that it has revised the disclosure on pages 12 and 90 of the Amended Registration Statement in response to the Staff's comment.

Risk Factors
Risks Related to Humacyte's Business and Industry, page 24

6. *Please include risk factor disclosure regarding your reliance on SeraCare Life Sciences, Inc. as the current single source supplier of human plasma used in your manufacturing process and Confluent Medical Technologies, Inc. as the current single source supplier of polymer mesh. Alternatively, explain why you believe your reliance on these sole source suppliers does not present a material risk.*

RESPONSE: The Company respectfully advises the Staff that it has revised the disclosure on page 38 of the Amended Registration Statement in response to the Staff's comment to name SeraCare Life Sciences, Inc. and Confluent Medical Technologies, Inc. as sole suppliers of human plasma and polymer mesh, respectively.

If SAEs occur or other unacceptable side effects are identified in our HAV's we may need to delay, abandon or limit development ..., page 26

7. To the extent trial participants have experienced any serious adverse events, please describe the events and disclose the number of occurrences.

RESPONSE: The Company respectfully advises the Staff that it has revised the disclosure on page 29 of the Amended Registration Statement in response to the Staff's comment.

The Sponsor and AHAC's officers and directors own AHAC Common Stock and Warrants..., page 59

8. Please quantify the out of pocket expenses incurred to date that are reimbursable if the Business Combination is completed.

RESPONSE: The Company respectfully advises the Staff that it has revised the disclosure on page 63 of the Amended Registration Statement in response to the Staff's comment.

AHAC may redeem your unexpired Warrants prior to their exercise..., page 60

9. Please revise your risk factor caption to clearly indicate that the Private Placement Warrants held by the Sponsor and its permitted transferees are not subject to the same risk as these warrants are not redeemable.

RESPONSE: The Company respectfully advises the Staff that it has revised the disclosure on page 64 of the Amended Registration Statement in response to the Staff's comment to clarify that the Private Placement Warrants are not subject to the same risks if held by the Sponsor and certain other parties.

Proposal 1: The Business Combination Proposal
Background of the Business Combination, page 70

10. Please revise to provide a more detailed description of the process used in eliminating potential business combination candidates as you progressed from "dozens" of candidates to Humacyte. Please provide more detail on these other potential targets, including with respect to the 16 that executed NDAs, details concerning their industries, size and why discussions ended on a company-by-company basis.

RESPONSE: The Company respectfully advises the Staff that it has revised the disclosure on page 75 of the Amended Registration Statement in response to the Staff's comment. The Company further advises the Staff that given there were multiple reasons why specific discussions were ended, the Company has provided a summary of reasons why such discussions were ended as opposed to including this information on a company-by-company basis, as the Company believes this this level of disclosure provides its stockholders with the key information regarding why discussions with potential business combinations were terminated without overcomplicating the disclosure with repetitive information.

11. We note your statement that the Units sold in the Concurrent Private Placement are identical to the Units sold in the Initial Public Offering. We also not your discussion page 232 that the Private Placement Warrants are exercisable on a cashless basis and are not redeemable by AHAC so long as they are held by the Sponsor. Please revise to here and throughout your document to remove the statement that they are identical and highlight the differences between the units issued in the Initial Public Offering and the units issued privately.

RESPONSE: The Company respectfully advises the Staff that it has revised the disclosure on page 261 of the Amended Registration Statement and throughout the Amended Registration Statement, where applicable, in response to the Staff's comment.

12. *We note your disclosure on page 72 that you reviewed financial information provided by Humacyte and comparisons to certain publicly traded companies and certain companies acquired in recent mergers and acquisitions transactions, including "publicly traded comparisons derived from information that had been prepared by investment banks advising regarding the public equity markets." Please expand your discussion to provide the following information:*

- *Clarify whether the financial information provided by Humacyte included information in addition to the financial projections provided on page 83.*
- *Clarify whether the publicly traded companies were the same as the publicly traded companies disclosed on page 80.*
- *Identify the companies acquired in recent mergers and acquisition transactions.*
- *Clarify who identified each group of companies.*
- *To the extent you considered additional financial information and additional publicly traded companies, please expand your discussion to provide the additional information you considered.*
- *To the extent the financial information included the projections on page 83, please explain how you considered the speculative nature of projections over such an extended period.*

RESPONSE: The Company respectfully advises the Staff that it has revised the disclosure on page 77 of the Amended Registration Statement in response to the Staff's comment.

13. *We note your disclosure on page 77 that AHAC's management team its own financial analysis supporting the equity valuation of Humacyte, which was reviewed by the Board. Please indicate when this analysis and review occurred and included this financial analysis in your prospectus.*

RESPONSE: The Company respectfully advises the Staff that it has revised the disclosure on page 81 of the Amended Registration Statement in response to the Staff's comment to note that AHAC's management team did not prepare its own separate financial analysis.

Opinion of AHAC's Financial Advisor, page 78

14. *Please revise page 80 to provide the criteria used to select the comparable companies. Please also disclose whether any comparables meeting the selection criteria were excluded from the analyses, and, if so, the reasons for making such exclusions.*

RESPONSE: The Company respectfully advises the Staff that it has revised the disclosure on pages 85-86 of the Amended Registration Statement in response to the Staff's comment.

15. *On page 83 you state that the Humacyte projections are "[p]robability adjusted for customary regulatory success rates of pre-commercialization products." Please revise to state the rate used in this adjustment. Please also revise to provide the date the projections were prepared and explain how Free Cash Flow was calculated.*

RESPONSE: The Company respectfully advises the Staff that it has revised the disclosure on page 88 of the Amended Registration Statement in response to the Staff's comment.

16. With respect to the comparable companies analysis, please explain how your advisors calculated EV/CY revenues through 2026 without the comparable companies' revenue projections.

RESPONSE: The Company respectfully advises the Staff that it has revised the disclosure on pages 85 and 86 of the Amended Registration Statement in response to the Staff's comment.

Opinion of AHAC's Financial Advisor
Certain Projected Financial Information, page 81

17. We note that Humacyte's management provided internal financial forecasts regarding Humacyte's anticipated future operations for fiscal years 2021 through 2034, which incorporated the financial forecasts prepared by Humacyte management, as adjusted for customary regulatory success rates of pre-commercialization products. We note that you presented a summary of this information at the top of page 83. We have the following comments regarding this disclosure:

- *Identify the material assumptions and estimates underlying the prospective financial information. For example, please explain the nature of the adjustments "for probability of regulatory/technical success" and how you arrived at such adjustments.*
- *Explain whether Humacyte applied the same regulatory success rates for each of the pre-commercialization products, and if so, why.*
- *Explain the nature of the material assumptions underlying Humacyte's revenue growth rates, operating costs and free cash flows; and*
- *Explain how management and the Board considered and relied upon the forecasts, particularly in light of the length of the projections and their current status as a development stage company.*

RESPONSE: The Company respectfully advises the Staff that it has revised the disclosure on pages 87 - 89 of the Amended Registration Statement in response to the Staff's comment.

Related Agreements, page 98

18. Please revise the description of the Investor Rights and Lock-up Agreement on page 100 to provide more detail concerning the term of the lock-up, the number of shares that will be covered by the registration rights and describe the provisions related to the New Humacyte Board.

RESPONSE: The Company respectfully advises the Staff that it has revised the disclosure under "Investor Rights and Lock-up Agreement" on page 106 of the Amended Registration Statement in response to the Staff's comment.

The Company respectfully advises the staff that the number of shares of New Humacyte common stock that will be subject to registration rights is indeterminable at this time. The identities of the parties to the Investor Rights and Lock-up Agreement (the "Agreement") will not be finalized until such time as the Agreement is entered into, which will be concurrent with the consummation of the Business Combination and necessarily at a time after the effectiveness of the Registration Statement. The number of shares of New Humacyte common stock subject to registration rights is also contingent upon several additional factors, including the number of shares of Humacyte capital stock ultimately converted into the right to receive shares of New Humacyte common stock, the number of shares of AHAC Class A Common Stock that parties to the Agreement may hold at the time of the Business Combination, and whether former holders of Humacyte capital stock receive additional shares of New Humacyte common stock as contingent consideration pursuant to the terms of the Business Combination Agreement.

Material U.S. Federal income Tax Considerations, page 101

19. Please revise this section to include a discussion of the material U.S. federal income tax considerations with respect to the Humacyte shareholders' share exchange. Refer to Item 4(a)(6) of Form S-4.

RESPONSE: The Company respectfully advises the Staff that it has revised the disclosure on pages 107 - 109 of the Amended Registration Statement in response to the Staff's comment to include a discussion of the material U.S. federal income tax considerations with respect to the Humacyte shareholders' share exchange.

Unaudited Pro Forma Condensed Combined Financial Information General, page 107

20. We note from your Item 7.01 Form 8-K filed April 14, 2021, that Humacyte closed on a secured debt financing facility with Silicon Valley Bank for up to $50 million, of which the first $20 million was funded at closing. Please address the need to reflect this transaction within your pro forma financial statements.

RESPONSE: The Company respectfully advises the Staff that it has revised the pro forma financial statements in response to the Staff's comment to reflect Humacyte's secured debt financing facility with Silicon Valley Bank.

Basis of Pro Forma Presentation, page 108

21. Please provide in tabular form the number of shares underlying the not yet exercisable warrants and unvested stock option awards.

RESPONSE: The Company respectfully advises the Staff that it has revised the disclosure on page 118 of the Amended Registration Statement in response to the Staff's comment.

2. Transaction Accounting Adjustments to Unaudited Pro Forma Condensed Combined Financial Information, page 115

22. We note the $20 million preliminary estimated payment of direct and incremental transaction costs incurred prior to or concurrent with the Business Combination and PIPE investment. Please separately disclose the amounts of such costs related to the Business Combination and PIPE. Address the need to reflect the Business Combination transaction costs within your pro forma statement of operations pursuant to Rule 11-02(a)(i)(6)(B) of Regulation S-X.

RESPONSE: The Company has revised the disclosure on page 124 of the Amended Registration Statement to more fully disclose the nature of the expenses to be incurred by AHAC and Humacyte. Topic 12 of the SEC's Financial Reporting Manual indicates that the SEC Staff considers a public shell reverse acquisition to be a capital transaction equivalent to that of a reverse recapitalization. The SPAC merger is a reverse recapitalization transaction that is the equivalent of the issuance of equity securities by the accounting acquirer (legal acquiree Humacyte) for the net monetary assets of AHAC. SAB Topic 5.A (codified in ASC 340-10-S99-1) provides that "[s]pecific incremental costs directly attributable to a proposed or actual offering of securities may properly be deferred and charged against the gross proceeds of the offering." Therefore, the costs to issue equity securities should be reflected as a reduction of the amount that would have otherwise been recorded in additional paid-in capital, reflecting the nature of SPAC merger as an equity transaction. Accordingly, we have identified the direct and incremental transaction costs associated with the equity raised by Humacyte related to the SPAC merger and will treat them as a reduction of the net cash proceeds and will deduct them from New Humacyte's additional paid-in capital rather than treating them as expensed as incurred. Additionally, we note that this proposed accounting is consistent with the Division of Corporate Finance SEC Staff published guidance: Frequently Requested Accounting and Financial Reporting Interpretations and Guidance (Section I(F) "Reverse Acquisitions – Accounting Issues"). The AHAC transaction costs incurred prior to the SPAC merger are recognized as expenses in AHAC's separate financial statements and, upon the SPAC merger, will be treated as a reduction of the net cash proceeds and deducted from New Humacyte's additional paid-in capital.

3. Loss Per Share, page 117

23. Please quantify the outstanding options, warrants and Contingent Consideration shares that are not included in the calculation of diluted earnings per share.

RESPONSE: The Company respectfully advises the Staff that it has revised the disclosure on pages 125 - 126 of the Amended Registration Statement in response to the Staff's comment.

4. Contingent Consideration, page 117

24. Please disclose the Price Targets and the number of shares to be issued if those Price Targets are met. Please also disclose the underlying accounting for the Contingent Consideration. Ensure that you explain that the Contingent Consideration will be remeasured to fair value at each reporting date and such changes in fair value will be recognized in earnings. Clarify, if true, that such changes could be material to future results of operations.

RESPONSE: The Company respectfully advises the Staff that it has revised the disclosure on page 127 of the Amended Registration Statement in response to the Staff's comment.

Information about Humacyte
Business Overview, page 150

25. We note your statement on pages 2 and 150 that your technology platform is "best-in-class." This term suggests that your product candidates are effective and likely to be approved. Please delete this reference. If your use of the term was designed to convey your belief that your product candidates are based on a differentiated technology or approach, you may further discuss how your technology or approach differs from those of your competitors.

RESPONSE: The Company respectfully advises the Staff that it has revised the disclosure on pages 2 and 165 of the Amended Registration Statement in response to the Staff's comment.

Our Market Opportunity, page 153

26. Please provide quantitative and monetary support for the market size valuations you provide on pages 154-155, except for Type 1 Diabetes.

RESPONSE: The Company respectfully advises the Staff that support for the market size valuations on pages 154-155 of the Initial Registration Statement is being provided supplementally to the Staff on the date hereof. In addition, the Company respectfully advises the Staff that it has revised the disclosure on pages 170 - 173 of the Amended Registration Statement in response to the Staff's comment.

Our Clinical and Pre-Clinical Stage Product Pipeline, page 155

27. Please provide a definition for primary and secondary patency on pages 156-157.

RESPONSE: The Company respectfully advises the Staff that it has revised the disclosure on pages 174, 178, 181 and 188 of the Amended Registration Statement in response to the Staff's comment.

28. We note the presentation of tables comparing your technology to published studies of alternative treatments. To the extent the data was not compiled based on head to head studies, please revise your disclosure to eliminate the comparison. Please note, you may present efficacy and rate of infection for alternative treatments but you cannot compare that information to Humacyte clinical trial results.

RESPONSE: The Company respectfully advises the Staff that it has revised the disclosure on pages 173-174 of the Amended Registration Statement and elsewhere in the Amended Registration Statement where referenced in response to the Staff's comment to remove the direct comparison with the results achieved with Humacyte's product candidates.

Proposed Indication #3: Peripheral Arterial Disease, page 165

29. Please revise to explain the meaning of the following statement on page 166: "after censoring for deaths, we observed a strong tolerability profile…."

RESPONSE: The Company respectfully advises the Staff that it has revised the disclosure on page 188 of the Amended Registration Statement in response to the Staff's comment.

Intellectual Property, page 175

30. Please revise to cite the foreign jurisdictions covered by your patents and pending patent applications.

RESPONSE: The Company respectfully advises the Staff that it has revised the disclosure on page 198 of the Amended Registration Statement in response to the Staff's comment.

31. Please revise pages 176-178 to provide the amount of the upfront fee, maintenance fees and milestone fees paid and payable to Yale University under each of the three license agreements. Additionally, we note the agreements expire on a country-by-country basis on the date on which the last of the patents in such country expires, lapses or is declared invalid. Please revise to state when these patents are due to expire.

RESPONSE: The Company respectfully advises the Staff that it has revised the disclosure on pages 199-201 of the Amended Registration Statement in response to the Staff's comment.

Management's Discussion and Analysis of Financial Condition and Results of Operations
Result of Operations, page 196

32. We note that Humacyte does not allocate research and development costs by program. Please explain to us how R&D costs are managed and how they are reported within the organization. Please clarify if costs are tracked by other classifications, such as salaries and related overhead expenses for personnel in research and development functions, fees paid to consultants and CROs and other categories such as those listed on page 194. If so, please provide this additional information for each period presented.

RESPONSE: The Company respectfully advises the Staff that it has revised the disclosure on pages 218 and 219 of the Amended Registration Statement in response to the Staff's comment.

Comparison of Stockholders' Rights, page 233

33. We note that your forum selection provision on page 240 identifies the Court of Chancery of the State of Delaware as the exclusive forum for certain litigation, including any "derivative action." Please disclose whether this provision applies to actions arising under the Securities Act. Please be sure to reconcile this disclosure with Annex C-5, which states that the provision does not apply to claims arising under the Securities Act.

RESPONSE: The Company respectfully advises the Staff that it has revised the disclosure on page 269 of the Amended Registration Statement in response to the Staff's comment.

Audited Financial Statements of Humacyte, Inc.
Grant Revenue, page F-28

34. Please provide in the disclosure a brief narrative for each of the awarded grants. As part of the narrative, include material terms and provisions.

RESPONSE: The Company respectfully advises the Staff that it has revised the disclosure on page F-48 of the Amended Registration Statement in response to the Staff's comment.

12. Commitments and Contingencies, page F-44

35. Please disclose the amount of annual maintenance fees the Company has agreed to pay Yale.

RESPONSE: The Company respectfully advises the Staff that it has revised the disclosure on pages F-67 - F-69 of the Amended Registration Statement in response to the Staff's comment.

14. Subsequent Events, page F-48

36. Please disclose the approximate amount of any additional stock compensation that will be recorded as a result of the 2021 stock option awards and whether vesting of these awards will accelerate upon finalization of the Business Combination. If so, please address the need to address any accounting implications in the pro forma financial information presented elsewhere.

RESPONSE: The Company respectfully advises the Staff that it has revised the disclosure on page F-71 of the Amended Registration Statement in response to the Staff's comment.

General

37. *Please provide us with copies of the materials that your financial advisors prepared and shared with your board in connection with this transaction, including any board books, transcripts and summaries of oral presentations made to the board. We may have additional comments after we review those materials.*

RESPONSE: The Company respectfully advises the Staff that it will supplementally provide to the Staff with the materials that its financial advisors prepared and shared with its board in connection with this transaction.

* * * * *

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

Sincerely,

By: /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*