June 24, 2021

Rajiv Shukla Chairman and Chief Executive Officer Alpha Healthcare Acquisition Corp. 1177 Avenue of the Americas 5th Floor New York, NY 10036

Acquisition Corp.

Registration Statement on Form S-4

20021

Re: Alpha Healthcare Amendment No. 1 to Filed June 14, File No. 333-254597

Dear Mr. Shukla:

We have reviewed your amended 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 understand your disclosure.

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.

After reviewing any amendment to your registration statement and the information you provide in response to these comments, we may have additional comments. Unless we note otherwise, our references to prior comments are to comments in our April 22, 2021 letter. 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 Rajiv Shukla

FirstName LastNameRajiv Shukla Alpha Healthcare Acquisition Corp.

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FirstName LastName 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.

Opinion of AHAC's Financial Advisor Certain Projected Financial Information, page 87 We have reviewed your revised disclosure in response to prior comment 2. 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: Identify the market and geographical regions for the 0 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; Explain to us the extent you have considered providing Λ separate projected financial information for each group of product candidates based on their stage of development given the significant differences in probability rates; 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; product candidates projected Explain what you mean by 0 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 0 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. Rajiv Shukla Alpha Healthcare Acquisition Corp. June 24, 2021 Page 3 Information about AHAC, page 146 We note your reference to backstop agreements that you may enter into 3. 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. Information about Humacyte Our Clinical and Pre-Clinical Stage Product Pipeline, page 173

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. 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. We note your reference on page 183 concerning the safety advantage of 6 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. Proposed Indication #3: Peripheral Arterial Disease, page 187 We note your response to our prior comment number 29. Please revise 7. 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. Management of the Combined Company, page 271 FirstName LastNameRajiv Shukla Please provide the information required by Item 18(a)(7) of Form S-4 for 8. Todd Pope and a Comapany NameAlpha file his consent asHealthcare Acquisition appropriate pursuant toCorp. Rule 438 of Regulation C under the Securities Act. June 24, 2021 Page 3 FirstName LastName Rajiv Shukla FirstName LastNameRajiv Shukla Alpha Healthcare Acquisition Corp. Comapany June NameAlpha Healthcare Acquisition Corp. 24, 2021 June 24, Page 4 2021 Page 4 FirstName LastName 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. You may contact Michael Fay at 202-551-3812 or Jeanne Baker at 202-551-3691 if you have questions regarding comments on the financial statements and related matters. Please contact Margaret Schwartz at 202-551-7153 or Suzanne Hayes at 202-551-3675 with

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any other questions.

Corporation Finance

Sciences cc: Laurie A. Burlingame, Esq. Sincerely, Division of Office of Life