

UNITED STATES SECURITIES AND EXCHANGE COMMISSION WASHINGTON, D.C. 20549

January 26, 2024

Thyagarajan Ramachandran Chief Financial Officer Healthcare Triangle, Inc. 7901 Stoneridge Drive, Suite 220 Pleasanton, CA 94588

> Re: Healthcare Triangle, Inc. Registration Statement on Form S-1 Filed January 12, 2024 File No. 333-276501

Dear Thyagarajan Ramachandran:

We have conducted a limited review of your registration statement and have the following comments.

Please respond to this letter by amending your registration statement and providing the requested information. If you do not believe a comment applies 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 this letter, we may have additional comments.

Registration Statement on Form S-1

Cover Page

1. Please revise here and elsewhere as appropriate to provide a more complete discussion regarding the terms of the First Tranche Note and the Securities Purchase Agreement dated December 28th, 2023. In addition, clarify the maximum number of shares that the note can be converted into and the circumstances and prices under which such conversions can occur, as well as any provisions that may permit a change to the floor price or conversion price, and the effect that any such changes would have on investors.

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Our revenues have historically been concentrated among our top customers . . ., page 19

2. Please identify the major customer who accounted for 39% of your revenue in 2022 and revise to provide a more complete discussion regarding your reliance on that customer and the material terms of your agreements with them, including any termination provisions. In addition, file any agreements as exhibits or tell us why it is not required. Refer to Item 601(b)(10) of Regulation S-K.

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.

Please contact Charli Gibbs-Tabler at 202-551-6388 or Matthew Derby at 202-551-3334 with any other questions.

Sincerely,

Division of Corporation Finance Office of Technology

cc: Jeff Wofford