

VIA EDGAR

September 11, 2023

United States Securities and Exchange Commission
Division of Corporation Finance
Office of Life Sciences
100 F Street, N.E.
Washington, D.C. 20549-3628
Attention: Doris Stacey Gama, Tim Buchmillar, Christine Torney and Daniel Gordon

Re: Talaris Therapeutics, Inc.
Amendment No. 1 to Registration Statement on Form S-4
Filed August 25, 2023
File No. 333-273335

Ladies and Gentlemen,

On behalf of Talaris Therapeutics, Inc. (the “Company”), we are submitting this letter to the Securities and Exchange Commission (the “SEC”) via EDGAR in response to the comment letter from the staff of the SEC (the “Staff”), dated September 6, 2023 (the “Comment Letter”), pertaining to the Company’s above-referenced Amendment No. 1 to Registration Statement on Form S-4 (the “Registration Statement”). In connection with such responses, the Company is concurrently filing Amendment No. 2 to the Registration Statement (the “Amended Registration Statement”).

For your convenience, the Staff’s comments are summarized in this letter, and each comment is followed by the applicable responses on behalf of the Company. Unless otherwise indicated, page references in the responses correspond to the page numbers in the Amended Registration Statement, and page references otherwise correspond to the page numbers in the Registration Statement. Capitalized terms used in this letter but otherwise not defined herein shall have the meanings set forth in the Amended Registration Statement.

Amendment No. 1 to Registration Statement on Form S-4**Tourmaline’s Pipeline, page 309**

1. We note your response to our previous comment 25 and reissue in part. On page 314 you state that Tourmaline has not received IND approval at this time for the clinical trials indicated in the pipeline table for ASCVD. Since the pipeline table could read as showing that Tourmaline is currently in clinical trials, please revise your table as appropriate to more clearly show the current status of ASCVD.

Response: The Company respectfully acknowledges the Staff's comment and advises the Staff that it has revised the disclosure on pages 119 and 309 of the Amended Registration Statement in response to the Staff's comment.

Please contact the undersigned at (212) 459-7238 or via email at sashfaq@goodwinlaw.com if you have any questions with respect to the foregoing.

Very truly yours,

/s/ Sarah Ashfaq

Sarah Ashfaq

Goodwin Procter LLP

cc: Mary Kay Fenton, *Talaris Therapeutics, Inc.*
John T. Haggerty, *Goodwin Procter LLP*
Richard A. Hoffman, *Goodwin Procter LLP*
Tevia K. Pollard, *Goodwin Procter LLP*