

Carsten Brunn, Ph.D.  
Chief Executive Officer  
Cartesian Therapeutics, Inc.  
704 Quince Orchard Road  
Gaithersburg, MD 20878

Re: Cartesian Therapeutics, Inc.  
Amendment No. 1 to Registration Statement on Form S-1  
Filed September 9, 2024  
File No. 333-281204

Dear Carsten Brunn Ph.D.:

We have reviewed your amended 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.

Amendment No. 1 to Registration Statement on Form S-1  
Prospectus Summary  
Company Overview, page 3

1. We note your response to prior comment 1 and reissue in part. Please revise your prospectus summary to define the term "durable clinical benefit" as used here and throughout the prospectus. In your revisions, please also briefly discuss the objective results underlying your conclusion that you observed a "durable clinical benefit" in your Phase 2 clinical trial in patients with myasthenia gravis.  
Risk Factors  
Anti-takeover provisions in our charter documents and under Delaware law..., page 34

2. We note your response to prior comment 2 and reissue in part. Please further revise this risk factor to clearly state whether this provision applies to actions arising under the Securities Act or Exchange Act. If this provision does not apply to actions arising under  
September 16, 2024  
Page 2

the Securities Act or Exchange Act, please also ensure that the exclusive forum provision in your governing documents states this clearly, or tell us how you will inform investors in future filings that the provision does not apply to any actions arising under the Securities Act or Exchange Act.  
Management's Discussion and Analysis of Financial Condition and Results of Operations  
Results of Operations, page 42

3. We have read your response to prior comment three. Please address the following points:  
As requested in the prior comment, please expand your disclosure of research and development expenses that you do not track by program to provide a breakdown by type or nature of expense for each period presented.  
You indicate in your response that the phrase "strategic reprioritization," on page 45 of the Amended Registration Statement, is being used to describe the shift in the Company's focus following the Merger to devote substantially all of its financial resources and efforts to developing its mRNA-based therapies for the treatment of

autoimmune diseases. Please expand your disclosure here to include this information.

Confirm in your response that, to the extent you do track expenses by program in the future, you will separately disclose the amount of such expenses by program.

Business  
Clinical Development, page 62

4. We note disclosure in this section stating that adverse events observed in your clinical

trial of Descartes-08 were "transient and mostly mild." We also note that the table on page

64 indicates that three of the adverse events observed were reported as Serious Adverse

Events. Please revise the narrative disclosure appearing in this section to clearly disclose

the number of Serious Adverse Events observed in your clinical trials of Descartes-08.

Please contact Tracie Mariner at 202-551-3744 or Kevin Vaughn at 202-551-3494 if you

have questions regarding comments on the financial statements and related matters. Please

contact Tyler Howes at 202-551-3370 or Tim Buchmiller at 202-551-3635 with any other

questions.

Sincerely,

Division of

Office of Life

Corporation Finance

Sciences

cc: Sarah C. Griffiths, Esq.