August 27, 2021

### Via EDGAR

Securities and Exchange Commission Division of Corporation Finance 100 F Street, N.E. Washington, D.C. 20549

Attn: Jeanne Baker

Terence O'Brien

Division of Corporation Finance

Office of Life Sciences

Re: Cyclerion Therapeutics, Inc.

10-K filed February 25, 2021

File No. 001-38787

### Ladies and Gentlemen:

On behalf of our client, Cyclerion Therapeutics, Inc. (the "*Company*"), we submit this letter setting forth the response of the Company to the comment provided by the staff (the "*Staff*") of the Securities and Exchange Commission (the "*Commission*") in its comment letter dated August 24, 2021 (the "*Comment Letter*") with respect to the Annual Report on Form 10-K filed with the Commission by the Company on February 25, 2021. Concurrently with the filing of this letter, the Company has filed Amendment No. 1 on Form 10-K/A (the "*Form 10-K/A*") through EDGAR. For your convenience, we have set forth the comment of the Staff from the Comment Letter in bold and italics below and provided our response below the comment.

## Form 10-K for the year ended December 31, 2020

# Exhibit 31, page 1

1. We note the certifications provided in Exhibits 31.1 and 31.2 do not include paragraph 4(b) and the introductory language in paragraph 4 referring to internal control over financial reporting after the end of the transition period that allows these omissions. Please amend the filing to provide revised certifications. You may file an abbreviated amendment that is limited to the cover page, explanatory note, signature page and paragraphs 1, 2, 4 and 5 of the certification. Refer to Exchange Act Rule 13a-14(a) and Item 601(b)(31) of Regulation S-K. Ensure that the revised certifications refer to the Form 10-K/A and are currently dated. Address this comment as it relates to your Form 10-Qs for the quarter ended March 31, 2021 and June 30, 2021.

### Response

The Company acknowledges the Staff's comment and has revised the certifications in Exhibits 31.1 and 31.2 of the Form 10-K/A. The Company acknowledges that it is also addressing the Staff's comment as it relates to its Form 10-Qs for the quarter ended March 31, 2021 and June 30, 2021 by filing Form 10-Q/As for such periods concurrently with the filing of the Form 10-K/A.

We hope that the foregoing has been responsive to the Staff's comment and look forward to resolving any outstanding issues as quickly as possible. Please direct any questions or comments regarding the foregoing to Gary J. Simon at 212-837-6770.

Very truly yours,

/s/ Gary J. Simon

Gary J. Simon, Hughes Hubbard & Reed LLP

cc: Anjeza Gjino, Cyclerion Therapeutics, Inc.