

AILERON THERAPEUTICS, INC.
290 Pleasant Street, Unit 112
Watertown, MA 02472

February 5, 2021

VIA EDGAR

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

Re: Aileron Therapeutics, Inc.
Registration Statement on Form S-3
File No. 333-252587
Request for Acceleration

Ladies and Gentlemen:

Pursuant to Rule 461 promulgated under the Securities Act of 1933, as amended, Aileron Therapeutics, Inc. (the "Registrant") hereby requests acceleration of the effective date of its Registration Statement on Form S-3 (File No. 333-252587), so that it may become effective at 4:00 p.m. Eastern time on February 9, 2021, or as soon thereafter as practicable, or at such later time as the Registrant or its counsel may orally request via telephone call to the staff.

Very truly yours,

AILERON THERAPEUTICS, INC.

By: /s/ Richard J. Wanstall

Name: Richard J. Wanstall

Title: Chief Financial Officer and Treasurer

cc: Stuart M. Falber
Wilmer Cutler Pickering Hale and Dorr LLP