

AILERON THERAPEUTICS, INC.

490 Arsenal Way, Suite 210
Watertown, MA 02472

May 10, 2019

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-1
File No. 333-231143
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-1 (File No. 333-231143) (the "Registration Statement"), so that it may become effective at 4:00 p.m. Eastern time on May 14, 2019, or as soon thereafter as practicable.

Very truly yours,

AILERON THERAPEUTICS, INC.

By: /s/ Donald V. Dougherty
Name: Donald V. Dougherty
Title: Senior Vice President, Chief Financial Officer

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