

AILERON THERAPEUTICS, INC.

281 Albany Street
Cambridge, MA 02139

June 26, 2017

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. 333-218474
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. 333-218474), as amended (the "Registration Statement"), so that it may become effective at 4:00 p.m. Eastern time on June 28, 2017, or as soon thereafter as practicable.

* * * *

Very truly yours,

AILERON THERAPEUTICS, INC.

By: /s/ Joseph A. Yanchik III

Name: Joseph A. Yanchik III

Title: President and Chief Executive Officer

cc: Stuart M. Falber, *Wilmer Cutler Pickering Hale and Dorr LLP*
Joshua D. Fox, *Wilmer Cutler Pickering Hale and Dorr LLP*
Peter N. Handrinos, *Latham & Watkins LLP*