

May 7, 2019

Manuel C. Alves Aivado, M.D., Ph.D.
President and Chief Executive Officer
Aileron Therapeutics, Inc.
490 Arsenal Way, Suite 210
Watertown, MA 02472

Re: Aileron Therapeutics, Inc.
Registration Statement on Form S-1
Filed May 1, 2019
File No. 333-231143

Dear Dr. Aivado:

This is to advise you that we have not reviewed and will not review your registration statement.

Please refer to Rules 460 and 461 regarding requests for acceleration. We remind you that the company and its management are responsible for the accuracy and adequacy of their disclosures, notwithstanding any review, comments, action or absence of action by the staff.

Please contact Jeffrey Gabor at 202-551-2544 with any questions.

Sincerely,

Division of

Office of

Corporation Finance

Healthcare & Insurance

cc: Stuart M. Falber, Esq.