

## UNITED STATES SECURITIES AND EXCHANGE COMMISSION WASHINGTON, D.C. 20549

June 14, 2022

Manuel C. Alves Aivado, M.D., Ph.D. President and Chief Executive Officer Aileron Therapeutics, Inc. 285 Summer Street, Unit 101 Boston, MA 02210

> Re: Aileron Therapeutics, Inc. Registration Statement on Form S-3 Filed June 8, 2022 File No. 333-265470

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 Joshua Gorsky at 202-551-7836 with any questions.

Sincerely,

Division of Corporation Finance Office of Life Sciences

cc: Craig Hilts, Esq.