

FOIA CONFIDENTIAL TREATMENT REQUEST**The entity requesting confidential treatment is:****Aileron Therapeutics, Inc.
281 Albany Street
Cambridge, Massachusetts 02139
Attn: Joseph A. Yanchik, III
President and Chief Executive Officer
(617) 995-0900**

June 7, 2017

BY EDGAR SUBMISSIONSecurities and Exchange Commission
Division of Corporation Finance
100 F Street, NE
Washington, DC 20549

Attention: Suzanne Hayes

Re: Aileron Therapeutics, Inc.
Registration Statement on Form S-1
Filed June 2, 2017
File No. 333-218474

Ladies and Gentlemen:

On behalf of Aileron Therapeutics, Inc. (the "Company"), set forth below is information in response to comment 5 contained in the letter to the Company dated October 5, 2015 from the staff (the "Staff") of the Securities and Exchange Commission (the "Commission") relating to the Draft Registration Statement on Form S-1 originally submitted by the Company to the Commission on September 10, 2015. Such Draft Registration Statement has been updated by the Company as reflected in the registration statement referenced above (File No. 333-218474), which was publicly filed by the Company on June 2, 2017 (the "Registration Statement"). The supplemental response set forth below is based upon information provided to Wilmer Cutler Pickering Hale and Dorr LLP by the Company.

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Wilmer Cutler Pickering Hale and Dorr LLP, 60 State Street, Boston, Massachusetts 02109

Beijing Berlin Boston Brussels Denver Frankfurt London Los Angeles New York Oxford Palo Alto Washington

Determining the Fair Value of Common Stock Prior to the IPO

As disclosed in the Registration Statement, the Board of Directors of the Company (the “Board”), with input from management, has historically determined the fair value of the Company’s common stock on the date of each equity grant based on a variety of factors, including third-party valuations of the common stock and the Board’s assessments of additional objective and subjective factors that it believed were relevant. The common stock valuations were performed using a hybrid method, which is a probability-weighted expected return method, where the equity value in one or more scenarios is calculated using an option-pricing method. The valuation analyses included judgments and estimates, including the time to completing an initial public offering (“IPO”) or other liquidity event, the probabilities assigned to such events, and the related valuations under each scenario, among other factors. Contemporaneous valuations were performed as of March 1, 2016 and December 31, 2016 and a retrospective valuation was performed as of March 2, 2017.

Initial Public Offering Price Range

Rule 83 Confidential Treatment Request by Aileron Therapeutics, Inc. Request #1

The Company has taken into consideration guidance and market data from its underwriting team that have been presented to and reviewed by the Board and management on May 26, 2017. To provide further information for the Staff’s consideration, the Company supplementally advises the Staff that the Company currently anticipates that the price range for this IPO will be within the range of \$[**] to \$[**] per share (before giving effect to a reverse stock split that the Company plans to implement prior to effectiveness of the Registration Statement). This anticipated price range is based on a number of factors, including the Company’s future prospects and those of the Company’s industry in general, progress of the Company’s development programs, the market prices of securities of companies engaged in activities similar to the Company’s, existing conditions in the public capital markets and preliminary discussions with the underwriters regarding potential valuations of the Company. The actual price range to be included in a subsequent amendment to the Registration Statement (which will comply with the Staff’s interpretation regarding the parameters of a bona fide price range) has not yet been determined and remains subject to adjustment based on factors outside of the Company’s control. However, the Company believes that the foregoing indicative price range will not be subject to significant change.

The anticipated price range for this IPO was determined with reference to several quantitative and qualitative factors, each of which contributed to the difference between the Company’s most

recent determination of the fair value of its common stock as of March 2, 2017 of \$0.65 per share and the midpoint of the anticipated offering price range of \$[**] per share. Specifically, the Company believes that the difference between the fair value of its common stock determined as of March 2, 2017 and the midpoint of the anticipated price range for this IPO is primarily the result of the following factors:

Aileron Therapeutics, Inc. respectfully requests that the information contained in the response be treated as confidential information and that the Commission provide timely notice to Joseph A. Yanchik, III, President and Chief Executive Officer, Aileron Therapeutics, Inc., 281 Albany Street, Cambridge, Massachusetts 02139, (617) 995-0900, before it permits any disclosure of the bracketed information in Request #1.

- The estimated price range for this IPO is based only upon a scenario in which the Company completes this IPO and is not probability weighted, in contrast to the Company's prior third-party valuations of its common stock. The prior third-party valuations also considered a scenario whereby the Company was acquired by a third party ("M&A Exit"), which would have resulted in a lower fair value of the Company's common stock than in the IPO scenario. In the March 2, 2017 retrospective valuation, the probability weighting for the IPO scenario was 60% and the probability weighting for the M&A Exit scenario was 40%. If the Company had applied a weighting of 100% to the IPO scenario, the fair value of the Company's common stock in the March 2, 2017 retrospective valuation would have been \$1.16 per share, after applying a discount of 15% for lack of marketability.
- The estimated price range for this IPO necessarily assumes that the Company's IPO has occurred and a public market for the Company's common stock has been created, and therefore excludes any discount for lack of marketability of the Company's common stock. If the Company had applied a weighting of 100% to the IPO scenario, the fair value of the Company's common stock in the March 2, 2017 retrospective valuation would have been \$1.36 per share, before giving effect to any discount for lack of marketability and time value of money.
- The estimated price range for this IPO necessarily assumes that all of the Company's preferred stock has converted into common stock in connection with this IPO. The Company's preferred stock currently has substantial economic rights and preferences over the Company's common stock. Upon the closing of this IPO, all outstanding shares of the Company's preferred stock will convert into common stock, thus eliminating the superior rights and preferences of the preferred stock as compared to the common stock.

- In “testing-the-waters” meetings held in May 2017, the Company received positive feedback from potential investors.
- The Company has taken further steps towards the completion of an IPO, including on June 2, 2017, the Company publicly filed the Registration Statement with the Commission.
- In June 2017, the Company announced data from its ongoing Phase 1 All-comers trial of ALRN-6924 at The American Society of Clinical Oncology 2017 Annual Meeting. Specifically, the Company reported positive interim safety and efficacy data, including that ALRN-6924 was well tolerated and demonstrated evidence of encouraging anti-tumor activity in this trial.
- The proceeds of a successful IPO would substantially strengthen the Company’s balance sheet by increasing its cash resources. In addition, the completion of this IPO would provide the Company with more ready access to the public company equity and debt markets.
- In the public markets, the Company believes there are investors who may apply more qualitative and subjective valuation criteria to certain of its clinical assets than the valuation methods applied in the Company’s valuations, although there can be no assurance that this will in fact be the case. As a private company, the Company used a more quantitative methodology to determine the fair value of its common stock and this methodology differs from the methodology used to determine the estimated price range for this IPO. The estimated price range for this IPO was not derived using a formal determination of fair value, but rather was determined by the estimated price range that we expect will be negotiated between the Company and the underwriters.
- The price that investors are willing to pay in this IPO, for which the price range is intended to serve as an estimate, may take into account other factors that have not been expressly considered in the Company’s prior valuations, are not objectively determinable, and that valuation models are not able to quantify.

The Company respectfully submits that the difference between the latest valuation and the midpoint of the anticipated offering price range is reasonable. Please see “Management’s Discussion and Analysis of Financial Condition and Results of Operations—Critical Accounting Policies and Use of Estimates—Stock-Based Compensation,” for an additional discussion of the valuation of the Company’s common stock.

The Company respectfully requests that the Staff return to the undersigned this letter pursuant to Rule 418 of the Securities Act of 1933, as amended, once the Staff has completed its review. For the convenience of the Staff, we have provided a self-addressed stamped envelope for this purpose. We respectfully reserve the right to request that this letter be returned to us at an earlier date.

In addition, the Company requests confidential treatment under 17 C.F.R. § 200.83 for the contents of this letter and has submitted a separate request for confidential treatment in accordance therewith to the Commission's Office of Freedom of Information and Privacy Act Operations.

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If you have any further questions or comments, or if you require any additional information, please contact the undersigned by telephone at (617) 526-6663. Thank you for your assistance.

Very truly yours,

/s/ Stuart M. Falber

Stuart M. Falber

cc: Jeffrey Gabor, *Securities and Exchange Commission*
Joseph McCann, *Securities and Exchange Commission*
Christina De Rosa, *Securities and Exchange Commission*
Dietrich A. King, *Securities and Exchange Commission*
Joseph A. Yanchik III, *Aileron Therapeutics, Inc.*
Joshua D. Fox, *Wilmer Cutler Pickering Hale and Dorr LLP*
Peter N. Handrinos, *Latham & Watkins LLP*

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