

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

SCHEDULE 13D

INFORMATION TO BE INCLUDED IN STATEMENTS FILED PURSUANT TO § 240.13d-1(a) AND AMENDMENTS THERETO FILED PURSUANT TO
240.13d-2(a) UNDER THE SECURITIES EXCHANGE ACT OF 1934

(Amendment No. 1)*

AILERON THERAPEUTICS, INC.

(Name of Issuer)

Common Stock, Par Value \$0.001

(Title of Class of Securities)

00887A 10 5

(CUSIP Number)

Victoria A. Whyte
GlaxoSmithKline plc
980 Great West Road
Brentford, Middlesex TW8 9GS
England
Telephone: +44 (0)208 047 5000

(Name, Address and Telephone Number of Person
Authorized to Receive Notices and Communications)

June 28, 2017

(Date of Event which Requires Filing of this Statement)

If the filing person has previously filed a statement on Schedule 13G to report the acquisition that is the subject of this Schedule 13D, and is filing this schedule because of §§240.13d-1(e), 240.13d-1(f) or 240.13d-1(g), check the following box.

Note: Schedules filed in paper format shall include a signed original and five copies of the schedule, including all exhibits. See §240.13d-7 for other parties to whom copies are to be sent.

* The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter disclosures provided in a prior cover page.

The information required on the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act.

 1. NAMES OF REPORTING PERSONS I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY)

GlaxoSmithKline plc

 2. CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP

(see instructions)

(a) (b)

 3. SEC USE ONLY

 4. SOURCE OF FUNDS (see instructions)

WC

 5. CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) or 2(e)

 6. CITIZENSHIP OR PLACE OF ORGANIZATION

England and Wales

 7. SOLE VOTING POWER

1,431,519

 8. SHARED VOTING POWER

-0-

 9. SOLE DISPOSITIVE POWER

1,431,519

 10. SHARED DISPOSITIVE POWER

-0-

 11. AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON

1,431,519 shares of Common Stock

 12. CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES

(see instructions)

 13. PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11)

9.7% of the shares of Common Stock (1)

 14. TYPE OF REPORTING PERSON (see instructions)

CO

 Footnotes:

(1) Based on 14,710,208 shares of the Issuer's common stock outstanding as of July 5, 2017 upon the closing of the Issuer's initial public offering, as reported in the Issuer's prospectus dated June 28, 2017 (the "Final Prospectus") filed with the Securities and Exchange Commission (the "SEC") on June 29, 2017 pursuant to Rule 424(b)(4) of the Securities Act of 1933, as amended (the "Securities Act").

Explanatory Note

This Amendment No. 1 to Schedule 13D (this “Amendment No. 1”) is being filed with respect to the shares of common stock, par value \$0.001 per share (the “Common Stock”), of Aileron Therapeutics, Inc., a Delaware corporation (the “Issuer”), to amend the Schedule 13D filed on July 10, 2017 (as amended by this Amendment No. 1, the “Schedule 13D”). Capitalized terms used but not otherwise defined herein shall have the meanings ascribed to them in the Schedule 13D.

This Amendment No. 1 is being filed for the sole purpose of including Exhibit 2, Lock-Up Agreement dated as of March 23, 2017, entered into by and between the Representatives and S.R. One, which was inadvertently omitted from the Schedule 13D.

Item 7. Material to Be Filed as Exhibits.

Exhibit	Name
2	Lock-Up Agreement, dated as of March 23, 2017, entered into by and between the Representatives and S.R. One.

SIGNATURE

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

Date: July 11, 2017

GLAXOSMITHKLINE PLC

By: /s/ Victoria A. Whyte
Name: Victoria A. Whyte
Title: Authorized Signatory

March 23, 2017

Merrill Lynch, Pierce, Fenner & Smith
Incorporated
Jefferies LLC
as Representatives of the several
Underwriters to be named in the
within-mentioned Underwriting Agreement

c/o Merrill Lynch, Pierce, Fenner & Smith
Incorporated
One Bryant Park
New York, New York 10036

and

Jefferies LLC
520 Madison Avenue
New York, New York 10022

Re: Proposed Public Offering by Aileron Therapeutics, Inc.

Dear Sirs:

The undersigned, a stockholder, optionholder, officer and/or director of Aileron Therapeutics, Inc., a Delaware corporation (the "Company"), understands that Merrill Lynch, Pierce, Fenner & Smith Incorporated ("Merrill Lynch") and Jefferies LLC ("Jefferies" and, together with Merrill Lynch, the "Representatives") propose to enter into an Underwriting Agreement (the "Underwriting Agreement") with the Company providing for the public offering (the "Offering") of shares of the Company's common stock, par value \$0.001 per share (the "Common Stock"). In recognition of the benefit that the Offering will confer upon the undersigned as a stockholder, optionholder, officer and/or director of the Company, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the undersigned agrees with each underwriter to be named in the Underwriting Agreement that, during the period beginning on the date hereof and ending on the date that is 180 days from the date of the Underwriting Agreement (the "Lock-Up Period"), the undersigned will not, without the prior written consent of the Representatives, (i) directly or indirectly, offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase or otherwise transfer or dispose of any shares of the Company's Common Stock or any securities convertible into or exercisable or exchangeable for Common Stock, whether now owned or hereafter acquired by the undersigned or with respect to which the undersigned has or hereafter acquires the power of disposition (collectively, the "Lock-Up Securities"), or exercise any right with respect to the registration of any of the Lock-Up Securities or the filing of any registration statement in connection therewith, under the Securities Act of 1933, as amended, or (ii) enter into any swap or any other agreement or any transaction that transfers, in whole or in part, directly or indirectly, the economic consequence of ownership of the Lock-Up Securities, whether any such swap or transaction is to be settled by delivery of Common Stock or other securities, in cash or otherwise. If the undersigned is an officer or director of the Company, the undersigned further agrees that the foregoing provisions shall be

equally applicable to any issuer directed shares of Common Stock the undersigned may purchase in the Offering.

If the undersigned is an officer or director of the Company, (1) the Representatives agree that, at least three business days before the effective date of any release or waiver of the foregoing restrictions in connection with a transfer of shares of the Common Stock, the Representatives will notify the Company of the impending release or waiver, and (2) the Company has agreed in the Underwriting Agreement to announce the impending release or waiver by press release through a major news service at least two business days before the effective date of the release or waiver. Any release or waiver granted by the Representatives hereunder to any such officer or director shall only be effective two business days after the publication date of such press release. The provisions of this paragraph will not apply if (i) the release or waiver is effected solely to permit a transfer not for consideration and (ii) the transferee has agreed in writing to be bound by the same terms described in this letter to the extent and for the duration that such terms remain in effect at the time of the transfer.

Notwithstanding the foregoing, and subject to the conditions below, the undersigned may, without the prior written consent of the Representatives:

- (a.) transfer the Lock-Up Securities, provided that (1) the Representatives receive a signed Lock-Up agreement for the balance of the Lock-Up Period from each donee, trustee, distributee, or transferee, as the case may be, (2) any such transfer shall not involve a disposition for value, (3) in the case of clauses (i.) through (v.) below, such transfers are not required to be reported with the Securities and Exchange Commission on Form 4 in accordance with Section 16 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and (4) the undersigned does not otherwise voluntarily effect any public filing or report regarding such transfers:
 - (i.) as a *bona fide* gift or gifts;
 - (ii.) to any trust for the direct or indirect benefit of the undersigned or the immediate family of the undersigned (for purposes of this lock-up agreement, "immediate family" shall mean any relationship by blood, marriage or adoption, not more remote than first cousin);
 - (iii.) as a distribution to limited partners, members, stockholders or other equity holders of the undersigned;
 - (iv.) to the undersigned's affiliates or to any investment fund or other entity that, directly or indirectly, controls, is controlled by, or is under common control with, the undersigned;
 - (v.) by will or intestate succession upon the death of the undersigned; or
 - (vi.) pursuant to a court or regulatory agency order, a qualified domestic order or in connection with a divorce settlement;
- (b.) exercise any rights to purchase, exchange or convert any stock options granted pursuant to the Company's equity incentive plans existing as of the date of the Underwriting Agreement or warrants or any other securities existing as of the date of the Underwriting Agreement, which securities are convertible into or exchangeable or exercisable for Common Stock, provided that (1) any filing under Section 16 of the Exchange Act made

during the Lock-Up Period shall clearly indicate in the footnotes thereto that (A) the filing relates to the circumstances described above and (B) the underlying shares of Common Stock continue to be subject to the restrictions on transfer set forth in this lock-up agreement and (2) the undersigned does not otherwise voluntarily effect any other public filings or report regarding such exercise during the Lock-Up Period;

- (c.) sell Lock-Up Securities to the Company in connection with the termination of the undersigned's employment or other service with the Company, provided that, (1) any filing under Section 16 of the Exchange Act made during the Lock-Up Period shall clearly indicate in the footnotes thereto that (A) the filing relates to the circumstances described above and (B) no Lock-Up Securities were sold by the reporting person other than such transfers to the Company as described above and (2) the undersigned does not otherwise voluntarily effect any other public filings or report regarding such transfers during the Lock-Up Period; or
- (d.) transfer the Lock-Up Securities upon the completion of a *bona fide* third-party tender offer, merger, consolidation or other similar transaction made to all holders of the Company's securities involving a change of control of the Company; provided that, in the event that such tender offer, merger, consolidation or other such transaction is not completed, such securities held by the undersigned shall remain subject to the restrictions on transfer set forth in this lock-up agreement (for purposes hereof, "change of control" shall mean the transfer (whether by tender offer, merger, consolidation or other similar transaction), in one transaction or a series of related transactions, to a person or group of affiliated persons, of shares of capital stock if, after such transfer, such person or group of affiliated persons would hold more than 50% of the outstanding voting securities of the Company (or the surviving entity)).

Notwithstanding anything herein to the contrary, nothing herein shall prevent the undersigned from establishing a 10b5-1 trading plan that complies with Rule 10b5-1 under the Exchange Act ("10b5-1 Trading Plan") or from amending an existing 10b5-1 Trading Plan so long as there are no sales of Lock-Up Securities under such plan during the Lock-Up Period; and provided that, the establishment of a 10b5-1 Trading Plan or the amendment of a 10b5-1 Trading Plan, in either case, providing for sales of Lock-Up Securities shall only be permitted if (i) the establishment or amendment of such plan is not required to be reported in any public report or filing with the Securities and Exchange Commission, or otherwise, and (ii) the undersigned does not otherwise voluntarily effect any public filing or report regarding the establishment or amendment of such plan.

Furthermore, during the Lock-Up Period, the undersigned may sell shares of Common Stock of the Company purchased by the undersigned in the Offering from the Underwriters (other than any issuer-directed shares of Common Stock purchased in the Offering by an officer or director of the Company) or on the open market following the Offering if and only if (i) such sales are not required to be reported in any public report or filing with the Securities and Exchange Commission, or otherwise and (ii) the undersigned does not otherwise voluntarily effect any public filing or report regarding such sales.

The undersigned also agrees and consents to the entry of stop transfer instructions with the Company's transfer agent and registrar against the transfer of the Lock-Up Securities except in compliance with the foregoing restrictions.

In the event that during the Lock-Up Period, the Representatives waive any prohibition on the transfer of Lock-Up Securities held by any record or beneficial holder of the shares of capital stock of the Company, the Representatives shall be deemed to have also waived for each Major Holder (as defined

below), on the same terms, the prohibitions set forth in the lock-up agreement that would otherwise have applied to such Major Holder with respect to the same percentage of such Major Holder's Lock-Up Securities as the relative percentage of aggregate Lock-Up Securities held by such party receiving the waiver which are subject to such waiver. The provisions of this paragraph will not apply: (1) unless and until the Representatives have first waived more than 1.0% of the Company's total outstanding shares of Common Stock (determined as of the date of such waiver and assuming conversion, exercise and exchange of all securities convertible into or exercisable or exchangeable for Common Stock) from such prohibitions, (2) (a) if the waiver is effected solely to permit a transfer not involving a disposition for value and (b) the transferee has agreed in writing to be bound by the same terms described in this lock-up agreement to the extent and for the duration that such terms remain in effect at the time of the transfer, or (3) if the waiver is granted to a holder of Lock-Up Securities in connection with a follow-on public offering of the Company's securities pursuant to a registration statement on Form S-1 that is filed with the Securities and Exchange Commission, provided that such waiver shall only apply with respect to such holder's participation in such follow-on public sale. In the event that, as a result of this paragraph, any Lock-Up Securities held by the undersigned are released from the restrictions imposed by this lock-up agreement, the Representatives shall use commercially reasonable efforts to notify the Company within two business days of the effective date of such release, and the Company, in turn, in consultation with the Representatives, shall use commercially reasonable efforts to notify the Major Holders within two business days thereafter that the same percentage of aggregate Lock-Up Securities held by such Major Holders has been released; provided that the failure to give such notice to the Company or the Major Holders shall not give rise to any claim or liability against the Company or the Underwriters, including the Representatives. Notwithstanding any other provisions of this lock-up agreement, if the Representatives, in their reasonable judgment, after consultation with the Company, determine that a record or beneficial owner of any Lock-Up Securities should be granted an early release from a lock-up agreement due to circumstances of an emergency or hardship, then the Major Holders shall not have any right to be granted an early release pursuant to the terms of this paragraph. For purposes of this lock-up agreement, each of the following persons is a "Major Holder": each record or beneficial owner, as of the date hereof, of more than 5% of the outstanding shares of capital stock of the Company on an as-converted to Common Stock basis (for purposes of determining record or beneficial ownership of a stockholder, all shares of capital stock held by investment funds affiliated with such stockholder shall be aggregated).

The undersigned understands that, if (1) the execution of the Underwriting Agreement in connection with the Offering shall not have occurred on or before December 31, 2017, (2) the Company files an application to withdraw the registration statement relating to the Offering, (3) the Underwriting Agreement (other than the provisions thereof which survive termination) shall terminate or be terminated prior to payment for and delivery of the Common Stock to be sold thereunder or (4) the Representatives, on behalf of the underwriters, advise the Company, or the Company advises the Representatives, in writing, prior to the execution of the Underwriting Agreement, that they have determined not to proceed with the Offering, the undersigned shall be released from all obligations under this agreement.

[Signature Page Follows]

Very truly yours,

If an individual:

[Print name above]

Signature

If an entity:

S.R. One, Limited

[Print entity name above]

By: /s/ Brian Gallagher
Name: Brian Gallagher, PhD.
Title: Vice President & Partner

