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

SCHEDULE 14A

Proxy Statement Pursuant to Section 14(a) of the Securities Exchange Act of 1934 (Amendment No.)

Filed by the Registrant \square Filed by a Party other than the Registrant \square

Check the appropriate box:

Preliminary Proxy Statement

- Confidential, for Use of the Commission Only (as permitted by Rule 14a-6(e)(2))
- □ Definitive Proxy Statement
- Definitive Additional Materials

□ Soliciting Material Pursuant to §240.14a-12

AILERON THERAPEUTICS, INC.

(Name of Registrant as Specified in Its Charter)

(Name of Person(s) Filing Proxy Statement, if Other Than the Registrant)

Payment of Filing Fee (Check the appropriate box):

- No fee required.
- □ Fee paid previously with preliminary materials.
- Fee computed on table in exhibit required by Item 2(b) per Exchange Act Rules 14a-6(i)(1) and 0-11.





Online

Go to https://www.envisionreports.com/ALRN-AM or scan the OR code – login details are located in the shaded bar below.

Stockholder Meeting Notice

Important Notice Regarding the Availability of Proxy Materials for the Aileron Therapeutics, Inc. Stockholder Meeting to be held on August 20, 2024

Under Securities and Exchange Commission rules, you are receiving this notice that the proxy materials for the annual stockholders' meeting are available on the Internet. Follow the instructions below to view the materials and vote online or request a copy. The items to be voted on and location of the annual meeting are on the reverse side. Your vote is important!

This communication presents only an overview of the more complete proxy materials that are available to you on the Internet. We encourage you to access and review all of the important information contained in the proxy materials before voting. The 2024 Proxy Statement and the 2023 Annual Report are available at:

https://www.envisionreports.com/ALRN-AM



Easy Online Access – View your proxy materials and vote.

- Step 1: Go to https://www.envisionreports.com/ALRN-AM.
- Step 2: Click on Cast Your Vote or Request Materials.
- Step 3: Follow the instructions on the screen to log in.
- Step 4: Make your selections as instructed on each screen for your delivery preferences.
- Step 5: Vote your shares.

When you go online, you can also help the environment by consenting to receive electronic delivery of future materials.



Obtaining a Copy of the Proxy Materials – If you want to receive a copy of the proxy materials, you must request one. There is no charge to you for requesting a copy. Please make your request as instructed on the reverse side on or before August 9, 2024 to facilitate timely delivery.

040L10

2 N O T

+

Stockholder Meeting Notice

Aileron Therapeutics' Annual Meeting of Stockholders will be held on August 20, 2024 online at meetnow.global/M55G7U9 at 9:00 a.m. Eastern Daylight Time.

Proposals to be voted on at the meeting are listed below along with the Board of Directors' recommendations.

The Board of Directors recommends a vote FOR all the nominees listed and FOR Proposals 2-3:

- 1. Election of two Class I directors:
 - 01 Brian Windsor, Ph.D.
 - 02 Alan A. Musso
- 2. To approve, on a non-binding advisory basis, our named executive officer compensation.
- 3. To ratify the appointment of Marcum LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2024

PLEASE NOTE - YOU CANNOT VOTE BY RETURNING THIS NOTICE. To vote your shares you must go online or request a paper copy of the proxy materials to receive a proxy card.



Here's how to order a copy of the proxy materials and select delivery preferences:

Current and future delivery requests can be submitted using the options below.

If you request an email copy, you will receive an email with a link to the current meeting materials.

PLEASE NOTE: You must use the number in the shaded bar on the reverse side when requesting a copy of the proxy materials.

- Internet Go to www.envisionreports.com/ALRN-AM. Click Cast Your Vote or Request Materials.
- Phone Call us free of charge at 1-866-641-4276.
- Email Send an email to investorvote@computershare.com with "Proxy Materials Aileron Therapeutics" in the subject line. Include
 your full name and address, plus the number located in the shaded bar on the reverse side, and state that you want a paper copy of
 the meeting materials.

To facilitate timely delivery, all requests for a paper copy of proxy materials must be received by August 9, 2024.