

**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

Filed by a Party other than the Registrant

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

**Ionis Pharmaceuticals, 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 computed on table below per Exchange Act Rules 14a-6(i)(1) and 0-11.
- (1) Title of each class of securities to which transaction applies: \_\_\_\_\_
- (2) Aggregate number of securities to which transaction applies: \_\_\_\_\_
- (3) Per unit price or other underlying value of transaction computed pursuant to Exchange Act Rule 0-11 (set forth the amount on which the filing fee is calculated and state how it was determined): \_\_\_\_\_
- (4) Proposed maximum aggregate value of transaction: \_\_\_\_\_
- (5) Total fee paid: \_\_\_\_\_
- Fee paid previously with preliminary materials.  
 Check box if any part of the fee is offset as provided by Exchange Act Rule 0-11(a)(2) and identify the filing for which the offsetting fee was paid previously. Identify the previous filing by registration statement number, or the Form or Schedule and the date of its filing.
- (1) Amount Previously Paid: \_\_\_\_\_
- (2) Form, Schedule or Registration Statement No.: \_\_\_\_\_
- (3) Filing Party: \_\_\_\_\_
- (4) Date Filed: \_\_\_\_\_

**Persons who are to respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB control number**

**\*\*\* Exercise Your *Right* to Vote \*\*\***  
**Important Notice Regarding the Availability of Proxy Materials for the  
Stockholder Meeting to Be Held on June 4, 2020.**

**IONIS PHARMACEUTICALS, INC.**

IONIS PHARMACEUTICALS, INC.  
2855 GAZELLE COURT  
CARLSBAD, CALIFORNIA 92010  
ATTN: CORPORATE SECRETARY

**Meeting Information**

**Meeting Type:** Annual Meeting  
**For holders as of:** April 6, 2020  
**Date:** June 4, 2020    **Time:** 2:00 PM PDT  
**Location:** Live webcast\*:

www.virtualshareholdermeeting.com/IONS2020.  
To join the webcast, please have the information that is printed in the box marked by the arrow → [XXXX XXXX XXXX XXXX] on the following page available.

\*In light of the COVID-19 pandemic, to support the health and well-being of our stockholders, employees and directors, and taking into account recent federal, state and local guidance, the Annual Meeting will be held in a virtual meeting format only, via live webcast on the Internet, with no physical in-person meeting. You will be able to attend, participate in and vote at the Annual Meeting online by joining the webcast at the website above.

You are receiving this communication because you hold shares in the company named above.

This is not a ballot. You cannot use this notice to vote these shares. This communication presents only an overview of the more complete proxy materials that are available to you on the Internet. You may view the proxy materials online at [www.proxyvote.com](http://www.proxyvote.com) or easily request a paper copy (see reverse side).

We encourage you to access and review all of the important information contained in the proxy materials before voting.

**See the reverse side of this notice to obtain  
proxy materials and voting instructions.**

D10219-P33544

— Before You Vote —  
How to Access the Proxy Materials

**Proxy Materials Available to VIEW or RECEIVE:**

FORM 10-K NOTICE AND PROXY STATEMENT

**How to View Online:**

Have the information that is printed in the box marked by the arrow → [XXXX XXXX XXXX XXXX] (located on the following page) and visit: [www.proxyvote.com](http://www.proxyvote.com).

**How to Request and Receive a PAPER or E-MAIL Copy:**

If you want to receive a paper or e-mail copy of these documents, you must request one. There is NO charge for requesting a copy. Please choose one of the following methods to make your request:

- 1) BY INTERNET: [www.proxyvote.com](http://www.proxyvote.com)
- 2) BY TELEPHONE: 1-800-579-1639
- 3) BY E-MAIL\*: [sendmaterial@proxyvote.com](mailto:sendmaterial@proxyvote.com)

\* If requesting materials by e-mail, please send a blank e-mail with the information that is printed in the box marked by the arrow → [XXXX XXXX XXXX XXXX] (located on the following page) in the subject line.

Requests, instructions and other inquiries sent to this e-mail address will NOT be forwarded to your investment advisor. Please make the request as instructed above on or before May 21, 2020 to facilitate timely delivery.

— How To Vote —

Please Choose One of the Following Voting Methods

**Vote By Internet:**

*Before The Meeting:*

Go to [www.proxyvote.com](http://www.proxyvote.com). Have the information that is printed in the box marked by the arrow → [XXXX XXXX XXXX XXXX] (located on the following page) available and follow the instructions.

*During The Meeting:*

Go to [www.virtualshareholdermeeting.com/IIONS2020](http://www.virtualshareholdermeeting.com/IIONS2020). Have the information that is printed in the box marked by the arrow → [XXXX XXXX XXXX XXXX] (located on the following page) available and follow the instructions.

**Vote By Mail:** You can vote by mail by requesting a paper copy of the materials, which will include a proxy card.

## Voting Items

**The Board of Directors recommends you vote FOR the following nominees to be elected for a term expiring in 2023:**

1. Election of Directors

**Nominees:**

- 01) Joseph Wender
- 02) B. Lynne Parshall
- 03) Spencer Berthelsen
- 04) Joan Herman

**The Board of Directors recommends you vote FOR proposals 2, 3, 4 and 5.**

2. To approve an amendment and restatement of the Ionis Pharmaceuticals, Inc. 2002 Non-Employee Directors' Stock Option Plan to, among other things, increase the aggregate number of shares of common stock authorized for issuance under such plan by 800,000 shares to an aggregate of 2,800,000 shares, reduce the amount of the automatic awards under the plan, revise the vesting schedule of awards and extend the term of the plan.
3. To ratify amending the existing stock option and restricted stock unit awards of directors to adjust vesting.
4. To approve, by non-binding vote, executive compensation.
5. Ratify the Audit Committee's selection of Ernst & Young LLP as independent auditors for the 2020 fiscal year.

**NOTE:** Such other business as may properly come before the meeting or any adjournment thereof.

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