

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

SCHEDULE 14A
(Rule 14a-101)

INFORMATION REQUIRED IN PROXY STATEMENT
SCHEDULE 14A INFORMATION

Proxy Statement Pursuant to Section 14(a) of the Securities
Exchange Act of 1934

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

ALNYLAM 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:

***** Exercise Your *Right to Vote* *****
**Important Notice Regarding the Availability of Proxy Materials for the
Stockholder Meeting to Be Held on May 6, 2020.**

ALNYLAM PHARMACEUTICALS, INC.

ALNYLAM PHARMACEUTICALS, INC.
ATTN: SECRETARY
675 WEST KENDALL STREET
HENRI A. TERMEER SQUARE
CAMBRIDGE, MA 02142

Meeting Information

Meeting Type: Annual Meeting
For holders as of: March 9, 2020
Date: May 6, 2020 **Time:** 12:00 p.m., Eastern Time
Location: Meeting live via the Internet - please visit
www.virtualshareholdermeeting.com/ALNY2020.

The company will be hosting the meeting live via the Internet this year. To attend the meeting via the Internet, please visit www.virtualshareholdermeeting.com/ALNY2020 and be sure to have the information that is printed in the box marked by the arrow → [XXXX XXXX XXXX XXXX] (located on the following page).

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 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.**

E98124-P34647-276664

— **Before You Vote** —
How to Access the Proxy Materials

Proxy Materials Available to VIEW or RECEIVE:

THE PROXY STATEMENT ANNUAL REPORT ON FORM 10-K ANNUAL REPORT TO STOCKHOLDERS

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.

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
- 2) BY TELEPHONE: 1-800-579-1639
- 3) BY E-MAIL*: 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 April 22, 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. 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/ALNY2020. 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

Proposals — The Board of Directors recommends you vote **FOR** each of the listed director nominees to serve for a term ending in 2023 and **FOR** Proposals 2, 3, 4 and 5.

1. To elect the following nominees as Class I directors of Alnylam:
 - 1a. Michael W. Bonney
 - 1b. John M. Maraganore, Ph.D.
 - 1c. Phillip A. Sharp, Ph.D.
2. To approve an Amendment to our 2018 Stock Incentive Plan, as amended.
3. To approve an Amendment to our Amended and Restated 2004 Employee Stock Purchase Plan, as amended.

4. To approve, in a non-binding advisory vote, the compensation of Alnylam's named executive officers.
5. To ratify the appointment of PricewaterhouseCoopers LLP, an independent registered public accounting firm, as Alnylam's independent auditors for the fiscal year ending December 31, 2020.

In their discretion, the Proxies are authorized to vote upon any other business that may properly come before the annual meeting or at any adjournment(s) thereof.

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