

ALNYLAM PHARMACEUTICALS, INC.  
Form 8-A12B  
April 08, 2014

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

**Form 8-A**

**For Registration of Certain Classes of Securities**

**Pursuant to Section 12(b) or (g) of**  
**the Securities Exchange Act of 1934**

**Alnylam Pharmaceuticals, Inc.**

**(Exact name of registrant as specified in its charter)**

**Delaware**  
**(State of Incorporation or Organization)**

**77-0602661**  
**(I.R.S. Employer Identification No.)**

**300 Third Street, Cambridge, Massachusetts**  
**(Address of Principal Executive Offices)**

**02142**  
**(Zip Code)**

If this form relates to the registration of a class of securities pursuant to Section 12(b) of the Exchange Act and is effective pursuant to General Instruction A.(c), please check the following box.

If this form relates to the registration of a class of securities pursuant to Section 12(g) of the Exchange Act and is effective pursuant to General Instruction A.(d), please check the following box.

**Securities Act registration statement file number to which this form relates: 333-113162**

**(If applicable)**

**Securities to be registered pursuant to Section 12(b) of the Act:**

<b>Title of Each Class to be so Registered</b>	<b>Name of Each Exchange on Which Each Class is to be Registered</b>
<b>Common Stock (including associated Series A Junior Participating Preferred Stock Rights), \$0.01 par value per share</b>	<b>The NASDAQ Stock Market LLC</b>
<b>Securities to be registered pursuant to Section 12(g) of the Act: None.</b>	

## EXPLANATORY NOTE

On February 27, 2014, Alnylam Pharmaceuticals, Inc. (the Registrant) amended its Rights Agreement as described below. In connection therewith, the Registrant is updating the information in its registration statement on Form 8-A originally filed with the Securities and Exchange Commission (the SEC) on May 5, 2004, as amended to date (the Form 8-A12G) to reflect an amendment to the description of its securities registered thereunder. As the Registrant's securities are now registered pursuant to Section 12(b) of the Securities Exchange Act of 1934, as amended (the Exchange Act), rather than Section 12(g) of the Exchange Act, the Registrant is filing this registration statement on Form 8-A12B to amend the disclosure set forth in the Form 8-A12G as follows:

### INFORMATION REQUIRED IN REGISTRATION STATEMENT

#### Item 1: Description of Registrant's Securities to be Registered.

Item 1 of the Form 8-A12G is hereby amended to add the disclosure below:

##### Amendment to Rights Agreement

On February 27, 2014, Alnylam Pharmaceuticals, Inc. (the Company) entered into a First Amendment to Rights Agreement (the Amendment) with Computershare Trust Company, N.A., f/k/a Equiserve Trust Company, N.A., as rights agent, to amend the terms of the Rights Agreement. The Amendment permits Genzyme Corporation (Genzyme) to exercise its rights under the Investor Agreement, dated February 27, 2014 (the Investor Agreement), by and between the Company and Genzyme (the Exemption). Such rights include, in general, Genzyme's ability to acquire up to 30% of the Company's outstanding shares of common stock during the standstill term set forth in the Investor Agreement, and Genzyme's right to participate proportionally in future issuances of the Company's common stock to maintain its then-current ownership percentage of the Company's common stock. With an exception relating to Genzyme's exercise of any continuing anti-dilution rights, the Exemption terminates if, following the standstill term under the Investor Agreement, Genzyme and its affiliates collectively beneficially own less than 20% of the outstanding shares of the Company's common stock. As of the date of the Amendment, Genzyme may be deemed to have Beneficial Ownership of up to 8,766,338 shares, or approximately 12%, of the Company's common stock.

The Rights Agreement and the Amendment are filed as Exhibits to this Form 8-A and incorporated herein by reference. The above description of the material terms of the Amendment as they relate to the Rights Agreement is qualified in its entirety by reference to such exhibits.

#### Item 2: Exhibits.

The following exhibits are filed herewith (or incorporated by reference as indicated below):

1. Restated Certificate of Incorporation of the Registrant, incorporated by reference to Exhibit 3.1 to the Registrant's Quarterly Report on Form 10-Q filed on August 11, 2005 (File No. 000-50743) for the quarterly period ended June 30, 2005.
2. Amended and Restated Bylaws of the Registrant, incorporated by reference to Exhibit 3.4 to the Registrant's Registration Statement on Form S-1 (File No. 333-113162).

3. Rights Agreement dated as of July 13, 2005 between the Registrant and EquiServe Trust Company, N.A., as Rights Agent, which includes as Exhibit A the Form of Certificate of Designations of Series A Junior Participating Preferred Stock, as Exhibit B the Form of Rights Certificate and as Exhibit C the Summary of Rights to Purchase Preferred Stock, incorporated by reference to Exhibit 4.1 to the Current Report on Form 8-K filed with SEC on July 14, 2005 (File No. 000-50743).
  
4. First Amendment to Rights Agreement, dated as of February 27, 2014, by and between the Company and Computershare Trust Company, N.A., as rights agent, incorporated by reference to Exhibit 4.1 to the Registrant's Current Report on Form 8-K, filed February 27, 2014 (File No. 000-50743).

**SIGNATURE**

Pursuant to the requirements of Section 12 of the Securities Exchange Act of 1934, the Registrant has duly caused this registration statement to be signed on its behalf by the undersigned, thereto duly authorized.

ALNYLAM PHARMACEUTICALS, INC.

Date: April 8, 2014

By: /s/ John M. Maraganore  
John M. Maraganore, Ph.D.  
Chief Executive Officer